SAMSUNG

E-MANUAL

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Model _____Serial No. _____

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❑ Using the INFO button (Now & Next guide)

The display identifies the current channel and the status of certain audio-video settings.

The Now & Next guide shows daily TV programme information for each channel according to the broadcasting time.

- Scroll ◀, ▶ to view information for a desired programme while watching the current channel.
- Scroll ▲, ▼ to view information for other channels. If you want to move to the currently selected channel, press the **ENTER** ↵ button.

❑ Using the Channel Menu

Press the **SMART HUB** button to select the menu you want to use. Each screen will be displayed.

- The displayed image may differ depending on the model.

■ Guide

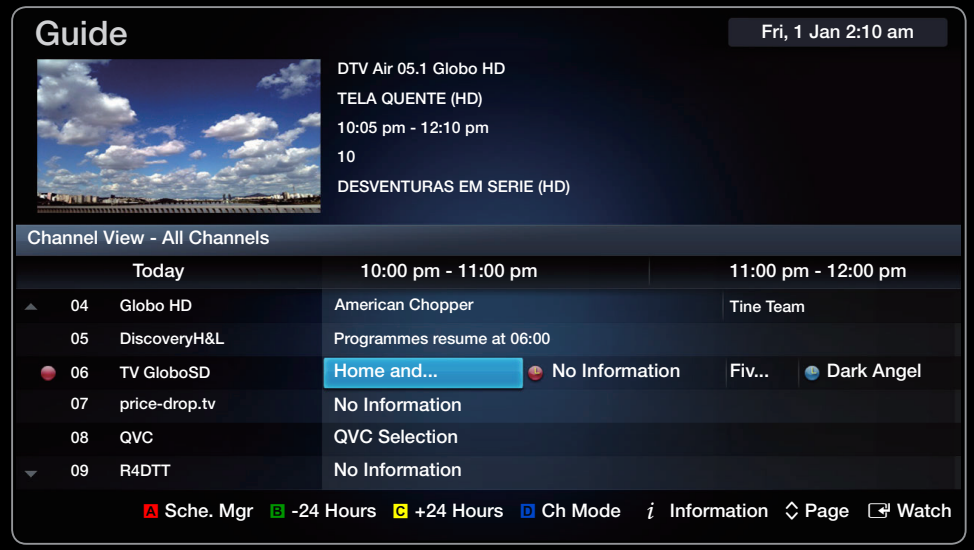
The EPG (Electronic Programme Guide) information is provided by broadcasters. Using programme schedules provided by broadcasters, you can specify programmes you want to watch in advance so that the channel automatically changes to the selected programme channel at the specified time. Programme entries may appear blank or out of date depending on a channel status.

Using Channel View

A Red (**Sche. Mgr**): Displays the **Schedule Manager**.

B Green (**-24 Hours**): Viewing the list of programmes to be broadcasted before 24 hours.

C Yellow (**+24 Hours**): Viewing the list of programmes to be broadcasted after 24 hours.



- The displayed image may differ depending on the model.

D Blue (**Ch. Mode**): Select the type of channels you want to display on the Channel View window.

i **Information**: Displays details of the selected programme.

Page: Move to next or previous page.

Watch: When selecting the current programme, you can watch the selected programme.

Schedule Manager

SMART HUB → Schedule Manager → ENTER

You can view, modify or delete a channel you have reserved to watch.

Using the Timer Viewing

You can set a desired channel to be displayed automatically at the intended time. Set the current time first to use this function.

1. Press the **ENTER** button to select **Schedule Manager**. The **Schedule Manager** screen will be displayed.
2. Press the **ENTER** button to add manual booking. A pop up screen will appear.
3. Press the ◀ or ▶ button to select the **Timer Viewing**.

4. Press the ◀ / ▶ / ▲ / ▼ buttons to set the **Antenna**, **Channel**, **Repeat** or **Start Time**.
   - **Antenna**: Select the desired antenna source.
   - **Channel**: Select the desired channel.
   - **Repeat**: Select **Once**, **Manual**, **Sat~Sun**, **Mon~Fri** or **Everyday** to set at your convenience. If you select **Manual**, you can set the day you want.

     ✎ The ✓ mark indicates the date is selected.
   - **Date**: you can set the desired date.

     ✎ It is available when you select **Once** in **Repeat**.
   - **Start Time**: You can set the start time you want.

- Press **INFO** to enter **Detailed Information**. On the **Detailed Information** screen, you can change or cancel a reserved information.
  - **Cancel Schedules**: Cancel a show you have reserved to watch.
  - **Edit**: Change a show you have reserved to watch.
  - **Return**: Return to the previous screen.
- Only memorised channels can be reserved.

Using the Timer Recording (digital channels only)

Allows you to make a reservation to record a programme scheduled for broadcast.

Set the current time first to use this function.

- The ● button also controls recording.

1. Press the **ENTER** ↵ button to select **Schedule Manager**. The **Schedule Manager** screen will be displayed.
2. Press the **ENTER** ↵ button to add manual booking. A pop up screen will appear.

3. Press the ◀ or ▶ button to select the **Timer Recording**.

   - We recommend using a USB HDD with at least 5,400 rpm, but a USB HDD of RAID type is not supported.
   - A USB storage device cannot record until it completes the **Device Performance Test**.
   - USB memory stick is not compatible.

4. Press the ◀ / ▶ / ▲ / ▼ buttons to set the **Antenna**, **Channel**, **Repeat**, **Date**, **Start** / **End Time**.

   - If you want to play a recorded programme, refer to **Recorded TV** in the e-Manual.

Channel List

You can view all the channel searched.

When you press the **CH LIST** button on the remote control, **Channel List** screen will be displayed at once.

- The displayed image may differ depending on the model.

Using the operation buttons with the **Channel List**.

- A Red (**Antenna**): Select the desired antenna source. The option may differ depending on country.
- C Yellow (**Programme View** / **Channel View**): Displays the programme when digital channel is selected. Returns to the channel view.
- ◀ ▶ **Ch. Mode**: Move to the type of channels you want to display on the **Channel List** screen. (**All**, **Analogue**, **TV**, **Radio**, **Data/Other**, **Favourites 1~5**)
- **Watch** / **Information**: Watches the channel you select. / Displays details of the selected programme.
- ▲ ▼ **Page**: Move to next or previous page.

❑ Using the Channel

■ Channel

Delete added channels or set favourites channels and use the programme guide for digital broadcasts. Select a channel in the **All Channels**, **Analogue**, **TV**, **Radio** and **Data/Other** screen. Change the antenna, or channel settings using the menus in the top right corner of the screen.

- The displayed image may differ depending on the model.

Antenna: Select the desired antenna source. The option may differ depending on country.

Sort: Change the list ordered by channel name or channel number.

Edit Mode: Delete channels assigned to **Favourites**. Refer to “Using the Favourite Channels” for details on how to assign a channel to Favourites. Setting channels you watch frequently as Favourites.

1. Select the **Edit Mode** icon on the upper right of your screen, and then press the **ENTER** button.

2. Press the arrow buttons to select a channel as a Favourites, and then press **ENTER**↵. A check appears to the left of the channel.

   - You can select more than one channel.
   - Pressing **ENTER**↵ again deselects the channel.

3. Select **Edit Favourites** at the bottom of your screen, and then press **ENTER**↵ button. The **Edit Favourites** pop-up appears.

4. Highlight a group on the Favourites list, and then press **ENTER**↵.

The **Edit Favourites** screen has five groups (Favourites 1, Favourites 2, etc.). You can add a Favourite channel to any one of the groups. Select a group using the up and down arrows on your remote.

5. Select **OK**, press **ENTER**↵, and then press **ENTER**↵ again.

6. Press **ENTER**↵ again to exit **Edit Mode**.

The **Edit Favourites** screen has five groups (Favourites 1, Favourites 2, etc.). You can add a Favourites channel to any one of the groups. Select a group using the up and down arrows on your remote.

- Using **Edit Mode** to Delete a Channel from the Channel List

1. Select the **Edit Mode** icon on the upper right of your screen, and then press the **ENTER** button.
2. Press the ◀ / ▶ / ▲ / ▼ buttons to select a channel, and then press **ENTER**. A check appears to the left of the channel.

   You can select more than one channel.

   Pressing **ENTER** again deselects the channel.
3. Select **Delete** at the bottom of your screen, and then press **ENTER**. A pop-up appears asking if you want to delete the item.

4. Select **OK**, press **ENTER**↵, and then press **ENTER**↵ again. The channel is deleted from the **Channel List**.
5. Press **ENTER**↵ again to exit **Edit Mode**.

   ✎ The Deselect function that appears with the Delete function lets you deselect all selected channels.

- **Select All**: Select all the channels.

Using the TOOLS button with the Channel

- **Edit Favourites**: Set channels you watch frequently as favourites.
  1. Select the **Edit Favourites**, then press the **ENTER** button.
  2. Press the **ENTER** button to select **Favourites 1-5**, then press the **OK** button.

  One favourites channel can be added in several of favourites channels among **Favourites 1-5**.
- **Lock** / **Unlock**: Lock a channel so that the channel cannot be selected and viewed.

NOTE

- This function is available only when the **Channel Lock** is set to **On**.

- **Edit Channel Name** (analogue channels only): Assign your own channel name.

NOTE This function may not be supported depending on the region.

- **Edit Channel Number**: Edit the number by pressing the number buttons desired.

  ✎ This function may not be supported depending on the region.

- **Upcoming Programme** (digital channels only): Change the list ordered by channel name or channel number.
- **Search** (when the **Antenna** was set to **Satellite**): Channel scan is started.
- **Reorder** (when the **Antenna** was set to **Satellite**): Rearrange the channel manager in numerical order.
- **Delete**: Delete a channel to display the channels you want.

Channel Status Display Icons

Icon	Operations
A	An analogue channel.
✓	A channel selected.
★	A channel set as a **Favourites**.
🔒	A locked channel.

❑ Using Favourites Channels

■ Favourites

SMART HUB → Favourites → ENTER

Shows all favourite channels.

- **Edit favourites** TOOLS: You can set the selected channels to desired Favourites group.

  The "★" symbol wil be displayed and the channel will be set as a Favourites.

1. On the **Channel** screen, select a channel and press the **TOOLS** button.

   If you want to add multiple channels, use the **Edit Mode** menu in the top right corner of the **Channel** screen.

2. Add or delete a channel in the favourite groups you want among 1, 2, 3, 4 and 5.

   One or more groups can be selected.

   The ✓ mark appears to the left of the selected files.

3. After you have changed the settings, the channel list for each group can be viewed in Favourites channels.

- The displayed image may differ depending on the model.

❑ Memorizing Channels

MENU → Channel → ENTER

■ Antenna TOOLS

The option may differ depending on country.

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV.

Country

Select your country so that the TV can correctly auto-tune the broadcasting channels.

- **Digital Channel**: Change the country for digital channels.
- **Analogue Channel**: Change the country for analogue channels.

Auto Tuning

Scans for a channel automatically and stores in the TV.

Automatically allocated programme numbers may not correspond to actual or desired programme numbers. If a channel is locked using the **Channel Lock** function, the PIN input window appears.

- **Air** / **Cable** / **Satellite**: Select the antenna source to memorise. The option may differ depending on country.
- **Cable Search Option**

  (depending on the country)

  Sets additional search options such as the frequency and symbol rate for a cable network search.

When Antenna Source is set to Air or Cable:

- **Digital & Analogue** / **Digital** / **Analogue**: Select the channel source to memorise. When selecting **Cable** → **Digital & Analogue** or **Digital**: Provide a value to scan for cable channels.
- **Search Mode** (**Full** / **Network** / **Quick**): Scans for all channels with active broadcast stations and stores them in the TV.

  ✎ If you select **Quick**, you can set up the **Network**, **Network ID**, **Frequency**, **Modulation**, and **Symbol Rate** manually by press the button on the remote control.

  Network (**Auto** / **Manual**): Selects the **Network ID** setting mode among **Auto** or **Manual.**

Network ID: When **Network** is **Manual**, you can set up **Network ID** using the numeric buttons.

Frequency: Displays the frequency for the channel. (differs in each country)

Modulation: Displays available modulation values.

Symbol Rate: Displays available symbol rates.

When Antenna Source is set to Satellite:

- Channel Type (All / TV / Radio): Select the Channel Type to memorise.
- Satellite: Selects the satellite to scan. The option may differ depending on country.
- Scan Mode (All Channels / Free Channels Only): Selects the scanning mode of the selected satellite.

Manual Tuning

Scans for a channel manually and stores in the TV.

- If a channel is locked using the **Channel Lock** function, the PIN input window appears.
- This function may not be supported depending on the region.

When Antenna Source is set to Air or Cable:

- **Digital Channel Tuning**: Scans for a digital channel.

  1. Press the ▲ / ▼ / ◀ / ▶ button to select **New**.

     - When selecting **Antenna** → **Air**: **Channel**, **Frequency**, **Bandwidth**
     - When selecting **Antenna** → **Cable**: **Frequency**, **Modulation**, **Symbol Rate**

2. Press the ▼ button to select **Search**. When scanning has finnished, a channel is updated in the channel list.

- **Analogue Channel Tuning**: Scans for a analogue channel.
  1. Press the ▲ / ▼ / ◀ / ▶ button to select **New**.
  2. Set the **Programme**, **Colour System**, **Sound System**, **Channel** and **Search**.
  3. Press the ▼ button to select **Store**. When scanning has finnished, a channel is updated in the channel list.

Channel mode

- **P** (programme mode): When tuning is complete, the broadcasting stations in your area have been assigned to position numbers from P0 to P99. You can select a channel by entering the position number in this mode.
- **C** (aerial channel mode) / **S** (cable channel mode): These two modes allow you to select a channel by entering the assigned number for each aerial broadcasting station or cable channel.

When Antenna Source is set to Satellite:

- **Transponder**: Selects the transponder using the up/down buttons.
- **Scan Mode** (**All Channels** / **Free Channels Only**): Selects either free or all channels to store.
- **Network Search** (**Disable** / **Enable**): **Enable** / **Disable** network search using the up/down buttons.
- **Signal Quality**: Display the current status of broadcasting signal.

◀ ▶

Information on a satellite and its transponder is subject to change depending on the broadcasting conditions.

When setting is completed, move to **Search** and press the **ENTER** button. Channel scan is started.

Genre Selection for U.K

Genre Selection is available when **Antenna** is set to **Freesat**.

- **Genre Selection** (**Off** / **On**): Turn the channel-genre selection feature on or off when using the guide.

Satellite System

Satellite System is available when **Antenna** is set to **Satellite**. Before running **Auto Store**, set **Satellite System**. Then channel scan is run normally.

- **Satellite Selection**: You can choose the satellites for this TV.
- **LNB Power** (**Off** / **On**): Enables or disables the power supply for the LNB.

- **LNB Settings**: Configures the outdoor equipment.
  - **Satellite**: Selects the satellite for receiving digital broadcasts.
  - **Transponder**: Selects a transponder from the list or adds a new transponder.
  - **DiSEqC Mode**: Selects DiSEqC mode for the selected LNB.
  - **Lower LNB Oscillators**: Sets the LNB oscillators to a lower frequency.
  - **Upper LNB Oscillators**: Sets the LNB oscillators to a higher frequency.
  - **Tone 22 kHz** (**Off** / **On** / **Auto**): Selects the Tone 22 kHz depending on the LNB type. For a universal LNB it should be Auto.
  - **Signal Quality**: Display the current status of broadcasting signal.

- **SatCR/Unicable Settings**: Configure single cable installation.

  This function may not support depending on the region.

  – **SatCR/Unicable**: Enables or disable single cable installation support.

  – **Slot Number**: Select the SatCR user slot number for this receiver.

  – **Slot Frequency**: Enter the appropriate frequency to receive the signal from SatCR.

  – **Detect Slot Frequency**: Auto-detect the signal frequency for the selected slot number.

  – **Verify Slot Frequency**: Verify that the frequency entered corresponds to the selected slot.

- **Positioner Settings**: Configures the antenna positioner.

  Positioner (**On** / **Off**): Enables or disables the positioned control.

  Positioner Type (**USALS** / **DiSEqC 1.2**): Sets the positioned type between DiSEqC 1.2 and USALS(Universal Satellite Automatic Location System).

  – **My Longitude**: Sets the longitude for my location.

  – **My Latitude**: Sets the latitude for my location.

  – **Satellite Longitude Settings**: Sets the longitude of user defined satellites.

User Mode: Sets the position of satellite antenna according to each satellite. If you store the current position of satellite antenna according to a certain satellite, when the signal of that satellite is needed, the satellite antenna can be moved to pre-populated position.

- **Satellite**: Selects the satellite to set the position for.
- **Transponder**: Selects a transponder from the list for signal reception.
- **Moving Mode**: Selects the movement mode between discrete and continuous movement.
- **Step Size**: Adjusts the step size degrees for the antenna rotation. Step Size is available when Moving Mode is set to Step.

- **Go to Stored Position**: Rotates the antenna to the stored satellite position.
- **Antenna Position**: Adjusts and stores the antenna position for the selected satellite.
- **Store Current Position**: Stores current position as the selected positioner limit.
- **Signal Quality**: Display the current status of broadcasting signal.

Installer Mode: Sets limits to the scope of movement of satellite antenna or reset the position. Generally, installation guide uses this function.

- **Limit Position** (**East** / **West**): Selects the direction of the positioner Limit.
- **Antenna Position**: Adjusts and stores the antenna position for the selected satellite.
- **Store Current Position**: Stores the current position as the selected positioner Limit.
- **Go to Zero**: Moves the antenna to the reference position.
- **Reset Positioner Limit**: Allows the antenna to rotate over the full arc.

- **Reset All Setting** (**Yes** / **No**): All satellite settings will be reset to the initial values.

❑ Other Features

MENU → Channel → ENTER

■ Guide Type (Samsung / Rovi On Screen)

(depending on the country)

You can select a different type of **Guide**.

- **Samsung**: Uses the guide programme by provided samsung.
- **Rovi On Screen**: Uses the guide programme provided by Rovi International Solutions.

  ROVI EPG initial setting time can take a while depending on the region or broadcast environment.

Transfer Channel List

Imports or exports the channel map. You should connect a USB storage to use this function.

- **Import from USB**: Import channel list from USB.
- **Export to USB**: Export channel list to USB. This function is available when USB is connected.

Fine Tune

(analogue channels only)

If the reception is clear, you do not have to fine tune the channel, as this is done automatically during the search and store operation. If the signal is weak or distorted, fine tune the channel manually. Scroll to the left or right until the image is clear.

- Settings are applied to the channel you're currently watching.
- Fine tuned channels that have been saved are marked with an asterisk "*" on the right-hand side of the channel number in the channel banner.
- To reset the fine-tuning, select **Reset**.

❑ Changing the Preset Picture Mode

MENU → Picture → Picture Mode → ENTER

■ Picture Mode TOOLS

Select your preferred picture type.

When connecting a PC, the **Picture Mode** is only available the **Standard** and **Entertain**.

- **Dynamic**: Suitable for a bright room.
- **Standard**: Suitable for a normal environment.
- **Natural** for LED TV / **Relax** for PDP TV: Suitable for reducing eye strain.
- **Movie**: Suitable for watching movies in a dark room.
- **Entertain**: Suitable for watching movies and games.

  It is only available when connecting a PC.

❑ Adjusting Picture Settings

MENU → Picture → ENTER

■ **Backlight** for LED TV / **Cell Light** for PDP TV / **Contrast** / **Brightness** / **Sharpness** / **Colour** / **Tint (G/R)**

Your television has several setting options for picture quality control.

- In analogue **TV**, **Ext.**, **AV** modes of the PAL system, the **Tint (G/R)** function is not available.
- When connecting a PC, you can only make changes to **Backlight** for LED TV, **Cell Light** for PDP TV, **Contrast**, **Brightness** and **Sharpness**.
- Settings can be adjusted and stored for each external device connected to the TV.

❑ Changing the Picture Size

MENU → Picture → Screen Adjustment → ENTER

■ Screen Adjustment

- **Picture Size**: Your cable box / satellite receiver may have its own set of screen sizes as well. However, we highly recommend you use 16:9 mode most of the time.
  - **Auto Wide**: Automatically adjusts the picture size to the 16:9 aspect ratio.
  - **16:9**: Adjusts the picture size to 16:9 for DVDs or wide broadcasting.
  - **Wide Zoom**: Magnifies the picture size more than 4:3.

– **Zoom**: Magnifies the 16:9 wide pictures vertically to fit the screen size.

– **4:3**: The default setting for a movie or normal broadcasting.

  Do not watch in 4:3 format for a long time. Traces of borders displayed on the left, right and centre of the screen may cause image retention (screen burn) which are not covered by the warranty.

– **Screen Fit**: Displays the full image without any cut-off when HDMI (720p / 1080i / 1080p) or Component (1080i / 1080p) signals are inputted.

– **Smart View 1**: Reduces the 16:9 picture by 50% for LED TV

– **Smart View 2**: Reduces the 16:9 picture by 25% for LED TV

- **Smart View 1** is enabled only in HDMI mode.
- **Smart View 2** is enabled only in HDMI or DTV mode.
- The picture size can vary depending on the input resolution when content is played using **Videos** under **SMART HUB**.

NOTE

- When Double (,) mode has been set in PIP (Picture-in-Picture), the Picture Size cannot be set.
- Depending on the input source, the picture size options may vary.
- The available items may differ depending on the selected mode.
- When connecting a PC, only **16:9** and **4:3** modes can be adjusted.
- Settings can be adjusted and stored for each external device connected to an input on the TV.

- After selecting **Zoom** or **Wide Zoom**:
  1. Press the ▼ button to select **Position**.
  2. Press the **ENTER** button.
  3. Press the ▲ or ▼ button to move the picture up or down.
  4. Press the **ENTER** button.
  5. Select **Close** by pressing the ▼ and ▲ buttons sequentially. To reset the picture position, press **Reset**.

- After selecting **Screen Fit** in HDMI (1080i / 1080p) or Component (1080i / 1080p) mode, you may need to centre the picture:
  1. Press the ▼ button to select **Position**.
  2. Press the **ENTER** ↵ button.
  3. Press the ▲, ▼, ◀ or ▶ button to move the picture.
  4. Press the **ENTER** ↵ button.
  5. Select **Close** by pressing the ▼ and ▲ buttons sequentially. To reset the picture position, press **Reset**.

- HD (High Definition): 16:9 - 1080i / 1080p (1920 x 1080), 720p (1280 x 720)
- Settings can be adjusted and stored for each external device you have connected to an input on the TV.

Input Source	Picture Size
ATV, EXT AV, Component (480i, 480p, 576i, 576p)	**Auto Wide**, **16:9**, **Wide Zoom**, **Zoom**, **4:3**
DTV (720p, 1080i, 1080p) Component (720p, 1080i, 1080p) HDMI (720p, 1080i, 1080p)	**Auto Wide**, **16:9**, **Wide Zoom**, **Zoom**, **4:3**, **Screen Fit** for DTV
HDMI (720p, 1080i, 1080p)	**Smart View 1** for LED TV
DTV (1080i), HDMI (720p, 1080i, 1080p)	**Smart View 2** for LED TV
PC	**16:9**, **4:3**

- **4:3 Screen Size** (**16:9** / **Wide Zoom** / **Zoom** / **4:3**): Available only when picture size is set to Auto Wide. You can determine the desired picture size at the 4:3 WSS (Wide Screen Service) size or the original size. Each European country requires different picture size.

  Not available in PC, Component or HDMI mode.

❑ Changing the Picture Options

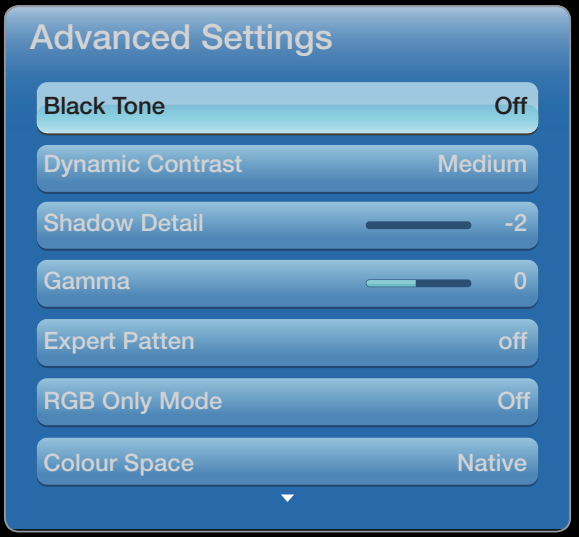
■ Advanced Settings

MENU → Picture → Advanced Settings → ENTER

(**Advanced Settings** are available in **Standard** / **Movie** mode)

You can adjust the detailed setting for the screen including colour and contrast.

When connecting a PC, you can only make changes to **Gamma** and **White Balance**.



- The displayed menu may differ depending on the model.

- **Black Tone** (**Off** / **Dark** / **Darker** / **Darkest**): Select the black level to adjust the screen depth.
- **Dynamic Contrast** (**Off** / **Low** / **Medium** / **High**): Adjust the screen contrast.
- **Shadow Detail** (**-2~+2**) for LED TV: Increase the brightness of dark images.
- **Gamma**: Adjust the primary colour intensity.
- **Expert Pattern** (**Off** / **Pattern1** / **Pattern2**): By running the **Expert Pattern** function, the picture can be calibrated without a generator or filter. If the OSD menu disappears or a menu other than the Picture menu is opened, the calibration is saved and the **Expert Pattern** window disappears.

  ✎ While the **Expert Pattern** is running, sound is not outputted.

  ✎ Only enabled on DTV, Component / HDMI models.

  ✎ Disabled for channels that support MHEG if Digital Text is enabled.

- **RGB Only Mode** (**Off** / **Red** / **Green** / **Blue**): Displays the **Red**, **Green** and **Blue** colour for making fine adjustments to the hue and saturation.
- **Colour Space** (**Auto** / **Native** / **Custom**): Adjust the range of colours available to create the image.

  ✎ To adjust **Colour**, **Red**, **Green**, **Blue** and **Reset**, set **Colour Space** to **Custom**.
- **White Balance**: Adjust the colour temperature for a more natural picture.

  R-Offset / **G-Offset** / **B-Offset**: Adjust each colour's (red, green, blue) darkness.

  R-Gain / **G-Gain** / **B-Gain**: Adjust each colour's (red, green, blue) brightness.

  Reset: Resets the White Balance to it's default settings.

- **10p White Balance** (**Off** / **On**): Controls the white balance in 10 point interval by adjusting the red, green, and blue brightness.

  ✎ Available when the picture mode is set to **Movie** and when the external input is set to all input.

  ✎ Some external devices may not support this function.

  Interval: Select interval to adjust.

  Red: Adjust the red level.

  Green: Adjust the green level.

  Blue: Adjust the blue level.

  Reset: Resets the **10p White Balance** to its default settings.

- **Flesh Tone**: Emphasize pink “Flesh Tone”.
- **Edge Enhancement** (**Off** / **On**): Emphasize object boundaries.
- **Motion Lighting** (**Off** / **On**) : Reduce power consumption by brightness control.

  3D is not supported.

  When changing a setting value of **Backlight** for LED TV / **Cell Light** for PDP TV , **Brightness** or **Contrast**, **Motion Lighting** will be set to **Off**.

- **xvYCC** (**Off** / **On**): Setting the **xvYCC** mode on increases detail and colour space when watching movies from an external device (e.g. DVD player) connected to the HDMI or Component IN jacks.

  ✎ Available when the picture mode is set to **Movie** and when the external input is set to HDMI or Component.

  ✎ Some external devices may not support this function.

- **LED Motion Plus** (**Off** / **On**) for LED TV: Removes drag from fast scenes with a lot of movement to provide a clear picture.

◀ ▶

Picture Options

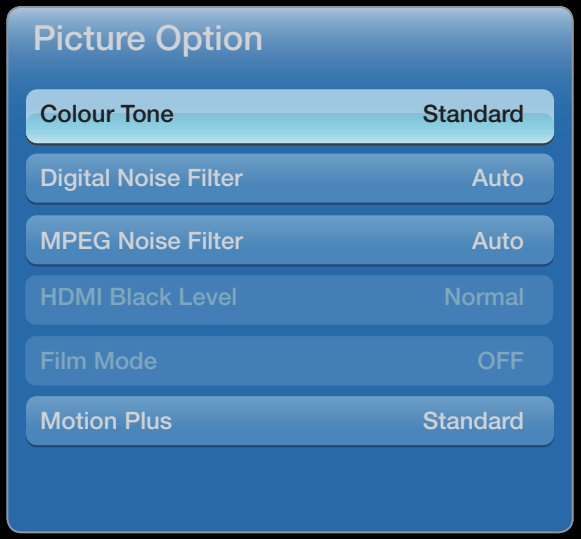
MENU → Picture → Picture Options → ENTER

When connecting a PC, you can only make changes to the **Colour Tone**.

- **Colour Tone** (**Cool** / **Standard** / **Warm1** / **Warm2**)

  Warm1 or **Warm2** will be deactivated when the picture mode is **Dynamic**.

  Settings can be adjusted and stored for each external device connected to an input on the TV.



- The displayed image may differ depending on the model.

- **Digital Noise Filter** (**Off** / **Low** / **Medium** / **High** / **Auto** / **Auto Visualisation**): When the broadcast signal is weak, some static and ghosting may appear. Select one of the options until the best picture is displayed.

  Auto Visualisation: When changing analogue channels, displays the intensity of the current signal and defines the screen noise filter.

  ✎ Only available for analogue channels.

- **MPEG Noise Filter** (**Off** / **Low** / **Medium** / **High** / **Auto**): Reduces MPEG noise to provide improved picture quality.
- **HDMI Black Level** (**Low** / **Normal**): Selects the black level on the screen to adjust the screen depth.

  ✎ Available only in HDMI mode (RGB signals).
- **Film Mode** (**Off** / **Auto1** / **Auto2** / **Cinema Smooth** for PDP TV): Sets the TV to automatically sense and process film signals from all sources and adjust the picture for optimum quality. The **Cinema Smooth** function is only activated when HDMI 24Hz signal is inputted.

  ✎ Available in AV, COMPONENT (480i / 1080i) and HDMI (1080i).

  ✎ If you do not feel comfortable viewing the screen, switch the **Film Mode** to **Off**, **Auto1**, or **Auto2**.

- **Motion Plus** (**Off** / **Clear** / **Standard** / **Smooth** / **Custom** / **Demo**) for LED TV
  : Removes drag from fast scenes with a lot of movement to provide a clearer picture.

  - The Info screen on your TV displays the resolution and frequency of the incoming signal (60Hz), but not the frequency the TV is generating for the image it is displaying by using **Motion Plus** function.
  - If noise occurs on the screen, please set up the **Motion Plus** to **Off**. If **Motion Plus** is **Custom**, you can set up the **Blur Reduction**, **Judder Reduction** or **Reset** manually.
  - If **Motion Plus** is **Demo**, you can compare the difference of on and off modes.

Blur Reduction: Adjusts the blur reduction level from video sources.

Judder Reduction: Adjusts the judder reduction level from video sources when playing films.

Reset: Reset the custom settings.

- **Reset Picture (Yes / No)**

  Resets your current picture mode to its default settings.

❑ Setting up the TV with Your PC

Set the input source to PC.

■ Auto Adjustment TOOLS

MENU → Picture → Auto Adjustment → ENTER

Adjust frequency values/positions and fine tune the settings automatically.

Not available when connecting with an HDMI to DVI cable.

PC Screen Adjustment

MENU → Picture → Screen Adjustment → PC Screen Adjustment → ENTER

- **Coarse** / **Fine**: Removes or reduces picture noise. If the noise is not removed by Fine-tuning alone, then adjust the frequency as best as possible (**Coarse**) and Fine-tune again. After the noise has been reduced, readjust the picture so that it is aligned to the centre of screen.
- **Position**: Adjust the PC screen position with direction button (▲ / ▼ / ◀ / ▶).
- **Image Reset**: Resets the image to default settings.

Setting Up Your PC Software (Based on Windows XP)

Depending on the version of Windows and the video card, the actual screens on your PC may differ in which case the same basic set-up information will almost always be applied. (If not, contact your computer manufacturer or Samsung Dealer.)

1. Click on “Control Panel” on the Windows start menu.
2. Click on “Appearance and Themes” in the “Control Panel” window and a display dialog-box will appear.
3. Click on “Display” and a display dialog box will appear.

4. Navigate to the “Settings” tab on the display dialog-box.
    - The correct size setting (resolution) [Optimum: 1920 X 1080 pixels]
    - If a vertical-frequency option exists on your display settings dialog box, the correct value is “60” or “60 Hz”. Otherwise, just click “OK” and exit the dialog box.

❑ Changing the Preset Sound Mode

MENU → Sound → Sound Mode → ENTER

■ Sound Mode TOOLS

- **Standard**: Selects the normal sound mode.
- **Music**: Emphasizes music over voices.
- **Movie**: Provides the best sound for movies.
- **Clear Voice**: Emphasizes voices over other sounds.
- **Amplify**: Increase the intensity of high-frequency sound to allow a better listening experience for the hearing impaired.

If **Speaker Select** is set to **External Speaker**, **Sound Mode** is disabled.

❑ Adjusting Sound Settings

MENU → Sound → ENTER

■ Sound Effect

- **SRS TruSurround HD** (**Off** / **On**)

  (standard sound mode only)

  This function provides a virtual 5.1 channel surround sound experience through a pair of speakers using HRTF (Head Related Transfer Function) technology.

If **Speaker Select** is set to **External Speaker**, **SRS TruSurround HD** is disabled.

- **SRS TruDialog** (**Off** / **On**)

  (standard sound mode only)

  This function allows you to increase the intensity of a voice over background music or sound effects so that dialog can be heard more clearly.

  ✎ If **Speaker Select** is set to **External Speaker**, **SRS TruDialog** is disabled.

- **SRS CS Headphone**: You can hear virtual 5.1ch surround sound over the headphones.

- **Equalizer**

  Adjusts the sound mode (standard sound mode only).

  – **Balance L/R**: Adjusts the balance between the right and left speaker.

  – **100Hz** / **300Hz** / **1kHz** / **3kHz** / **10kHz** (Bandwidth Adjustment): Adjusts the level of specific bandwidth frequencies.

  – **Reset**: Resets the equalizer to its default settings.

  If **Speaker Select** is set to **External Speaker**, **Equalizer** is disabled.

■ 3D Audio (Off / Low / Medium / High)

3D audio technology provides the immersive sound corresponding to the pop-up effect of 3D video by audio depth control in perspective.

✎ Available in only when watching 3D image.

Broadcast Audio Options

- **Audio Language**

  (digital channels only)

  Change the default value for audio languages.

  ✎ The available language may differ depending on the broadcast.

- **Audio Format**

  (digital channels only)

  When sound is emitted from both the main speaker and the audio receiver, a sound echo may occur due to the decoding speed difference between the main speaker and the audio receiver. In this case, use the TV Speaker function.

  ✎ **Audio Format** option may differ depending on the broadcast. 5.1ch Dolby digital sound is only available when connecting an external speaker through an optical cable.

◀ ▶

- **Audio Description**

  (not available in all locations) (digital channels only)

  This function handles the Audio Stream for the AD (Audio Description) which is sent along with the Main audio from the broadcaster.

  ✎ **Audio Description** (**Off** / **On**): Turn the audio description function on or off.

  ✎ **Volume**: Adjust the audio description volume.

Additional Setting

(digital channels only)

- **DTV Audio Level** (**MPEG** / **HE-AAC**): This function allows you to reduce the disparity of a voice signal (which is one of the signals received during a digital TV broadcast) to a desired level.

  - According to the type of broadcast signal, **MPEG** / **HE-AAC** can be adjusted between -10dB and 0dB.
  - To increase or decrease the volume, adjust between the range 0 and -10 respectively.

- **SPDIF Output**: SPDIF (Sony Philips Digital InterFace) is used to provide digital sound, reducing interference going to speakers and various digital devices such as a DVD player.

  Audio Format: You can select the Digital Audio output (SPDIF) format.

  ✎ The available Digital Audio output (SPDIF) format may differ depending on the input source

  Audio Delay: Correct audio-video sync problems, when watching TV or video, and when listening to digital audio output using an external device such as an AV receiver (0ms~250ms).

- **Dolby Digital Comp** (**Line** / **RF**): This function minimizes signal disparity between a dolby digital signal and a voice signal (i.e. MPEG Audio, HE-AAC, ATV Sound).

  Select Line to obtain dynamic sound, and RF to reduce the difference between loud and soft sounds at night time.

  Line: Set the output level for signals greater or less than -31dB (reference) to either -20dB or -31dB.

  RF: Set the output level for signals greater or less than -20dB (reference) to either -10dB or -20dB.

Speaker Settings

- **Speaker Select** (**External Speaker** / **TV Speaker**)

  A sound echo may occur due to a difference in decoding speed between the main speaker and the audio receiver. In this case, set the TV to **External Speaker**.

  When **Speaker Select** is set to **External Speaker**, the volume and **MUTE** buttons will not operate and the sound settings will be limited.

  When **Speaker Select** is set to **External Speaker**.

  - **TV Speaker**: **Off**, **External Speaker**: **On**

✎ When **Speaker Select** is set to **TV Speaker**.

- **TV Speaker**: **On**, **External Speaker**: **On**

✎ If there is no video signal, both speakers will be mute.

- **Auto Volume** (**Off** / **Normal** / **Night**)

To equalize the volume level on each channel, set to **Normal**.

Night: This mode provides an improved sound experience compared to **Normal** mode, making almost no noise. It is useful at night.

✎ When you control the volume of the external devices (Set-top-box or DivX Player) connected to the TV, set to off the **Auto Volume** mode. Because you can’t feel the effect of the volume control by the **Auto Volume** mode.

■ **Reset Sound (Yes / No)**

Reset all sound settings to the factory defaults.

❑ Selecting the Sound Mode TOOLS

When you set to **Dual Ⅰ-Ⅱ**, the current sound mode is displayed on the screen.

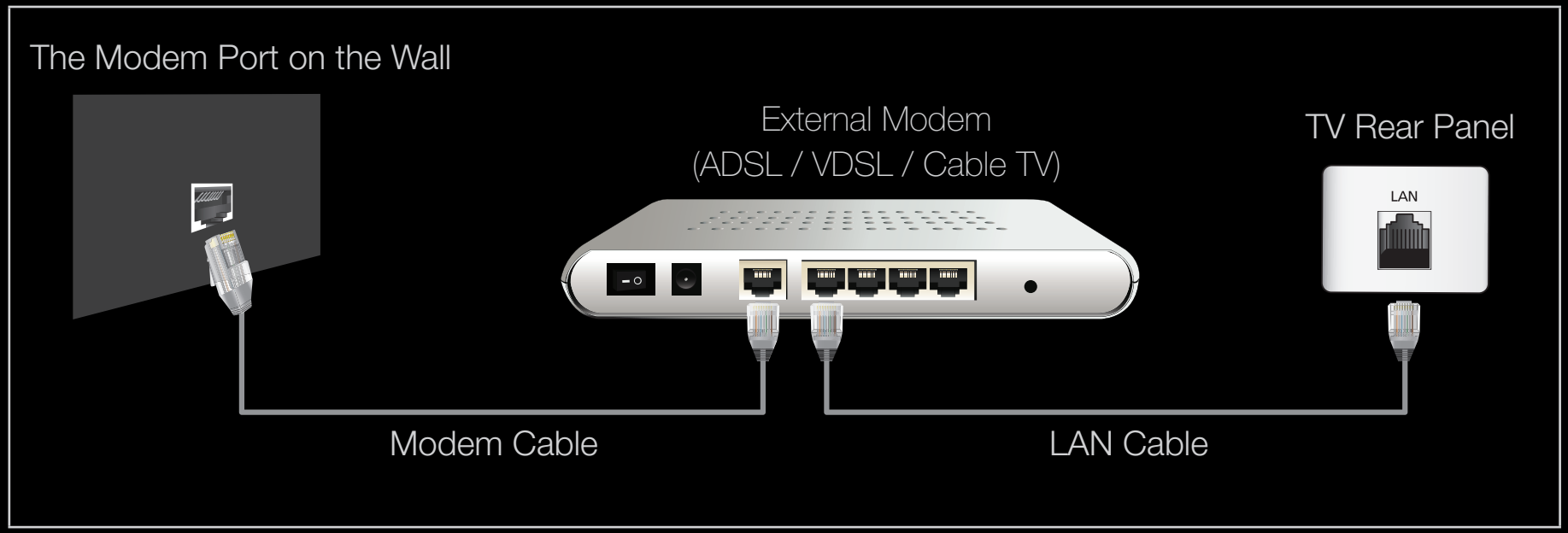
	Audio Type	Dual 1 / 2	Dual 1 / 2
A2 Stereo	Mono	**MONO**	Automatic change
	Stereo	**STEREO** ↔ **MONO**	
	Dual	**DUAL Ⅰ** ↔ **DUAL Ⅱ**	**DUAL Ⅰ**
NICAM Stereo	Mono	MONO	Automatic change
	Stereo	**MONO** ↔ **STEREO**	
	Dual	**MONO** → **DUAL Ⅰ** ↖ **DUAL Ⅱ** ↙	**DUAL Ⅰ**

- If the stereo signal is weak and an automatic switching, occurs, then switch to the mono.
- Only activated in stereo sound signal.
- Only available when the **Source** is set to **TV**.

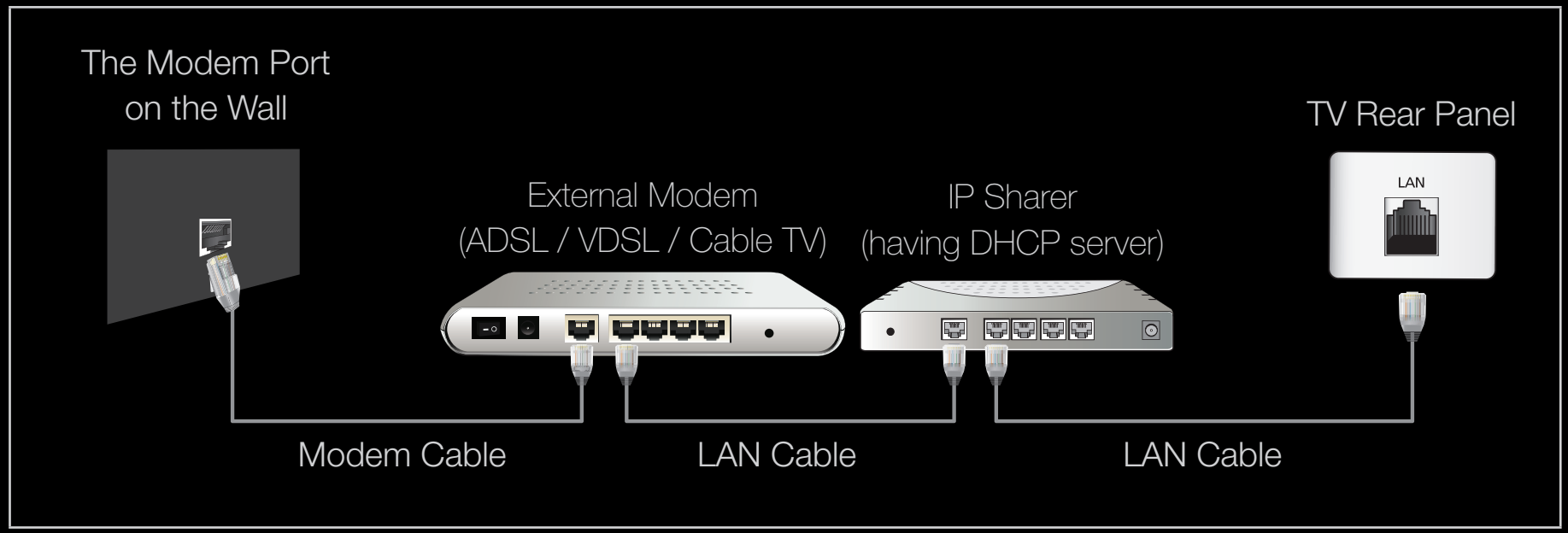
❑ Connecting to a Wired Network

You can attach your TV to your LAN using cable in three ways:

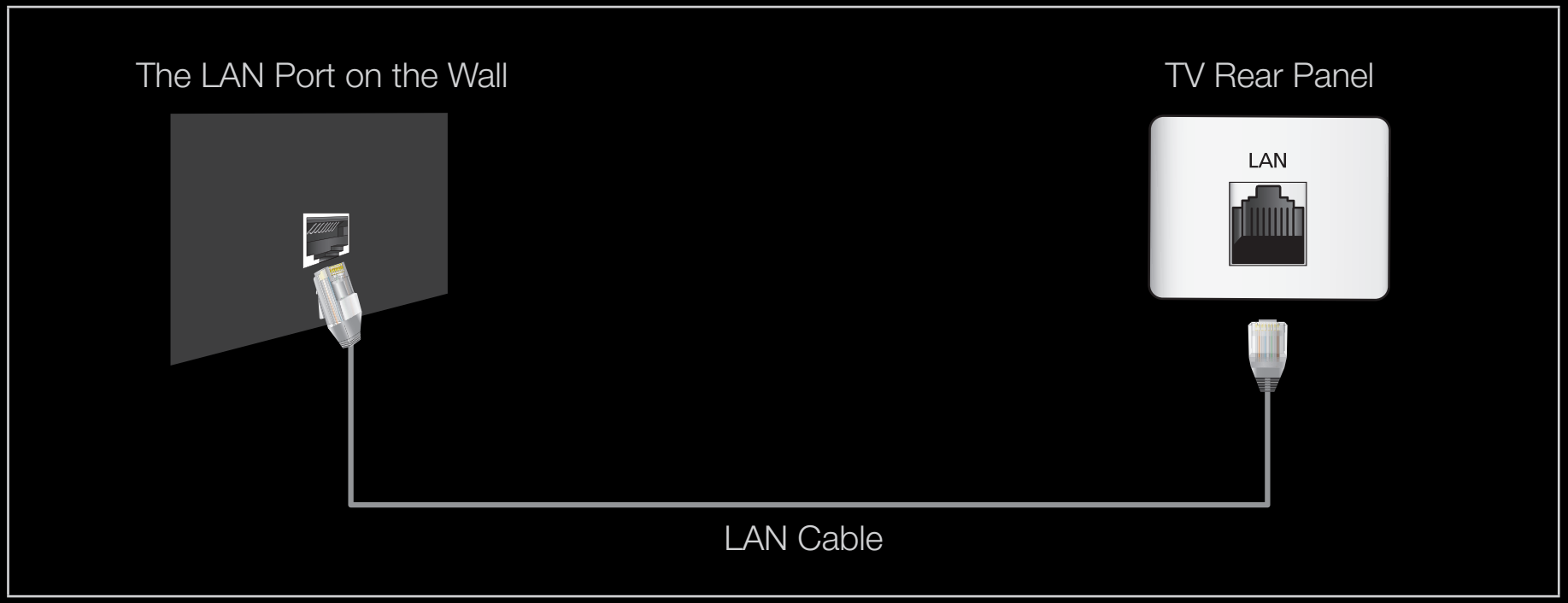
- You can attach your TV to your LAN by connecting the LAN port on the back of your TV to an external modem using a LAN cable. See the diagram below.



- You can attach your TV to your LAN by connecting the LAN port on the back of your TV to a IP Sharer which is connected to an external modem. Use LAN cable for the connection. See the diagram below.



- Depending on how your network is configured, you may be able to attach your TV to your LAN by connecting the LAN port on the back of your TV directly to a network wall outlet using a LAN cable. See the diagram below. Note that the wall outlet is attached to a modem or router elsewhere in your house.



- If you have a Dynamic Network, you should use an ADSL modem or router that supports Dynamic Host Configuration Protocol (DHCP). Modems and routers that support DHCP automatically provide the IP address, subnet mask, gateway, and DNS values your TV needs to access the Internet so you do not have to enter them manually. Most home networks are Dynamic Networks.

  Some networks require a Static IP address. If your network requires a Static IP address, you must enter the IP address, subnet mask, gateway, and DNS values manually on your TV's Cable Setup Screen when you set up the network connection. To get the IP address, subnet mask, gateway, and DNS values, contact your Internet Service Provider (ISP). If you have a Windows computer, you can also get these values through your computer.

  ✎ You can use ADSL modems that support DHCP if your network requires a Static IP address. ADSL modems that support DHCP also let you use Static IP addresses.

❑ Setting the Network

■ Network Settings

MENU → Network → Network Settings → ENTER

Set the network connection to use various Internet services such as **SMART HUB**, AllShare™ and perform software upgrade.

■ Network Status

MENU → Network → Network Status → ENTER

You can check the current network and Internet status.

AllShare Settings

MENU → Network → AllShare Settings → ENTER

Selects whether to use media functions on the network.

SWL(Samsung Wireless Link)

MENU → Network → SWL(Samsung Wireless Link) → ENTER

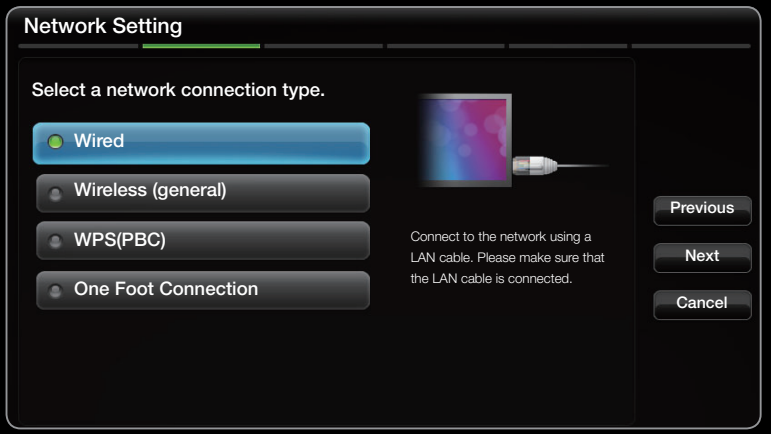
You can connect TV to wireless mobile device easily.

Network Setup (Auto)

Use the Automatic Network Setup when connecting your TV to a network that supports DHCP. To set up your TV's cable network connection automatically, follow these steps:

How to set up automatically

1. Go to **Network Settings** screen. To enter it, follow the directions of **Network Settings**.
2. Select the **Wired**.
3. The network test screen appears, and network setting is done.



- The displayed image may differ depending on the model.

- If it fails to set automatically, check the connection of LAN port.
- If you cannot find network connection values or if you want to set connection manually, set it to Manual. Refer to following “How to set up manually”.

- The displayed image may differ depending on the model.

Network Settings (Manual)

Use the Manual Network Setup when connecting your TV to a network that requires a Static IP address.

Getting the Network Connection Values

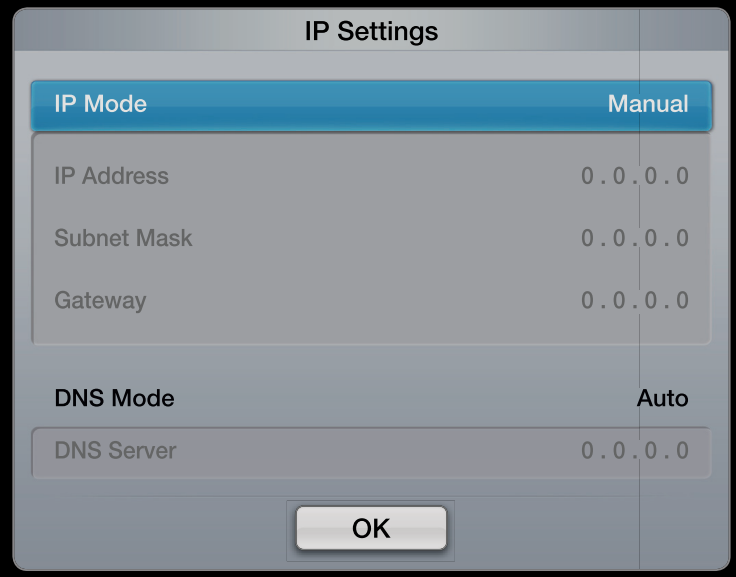
To get the Network connection values on most Windows computers, follow these steps:

1. Right click the Network icon on the bottom right of the screen.
2. In the pop-up menu that appears, click Status.
3. On the dialog that appears, click the Support tab.
4. On the Support Tab, click the Details button. The Network connection values are displayed.

How to set up manually

To set up your TV's cable network connection manually, follow these steps:

1. Follow Steps 1 through 2 in the "How to set up automatically" procedure.
2. Select the **IP Setting** on network test screen.
3. Set **IP Mode** to **Manual**.
4. Press the ▼ button on your remote to go to the **IP Address**.

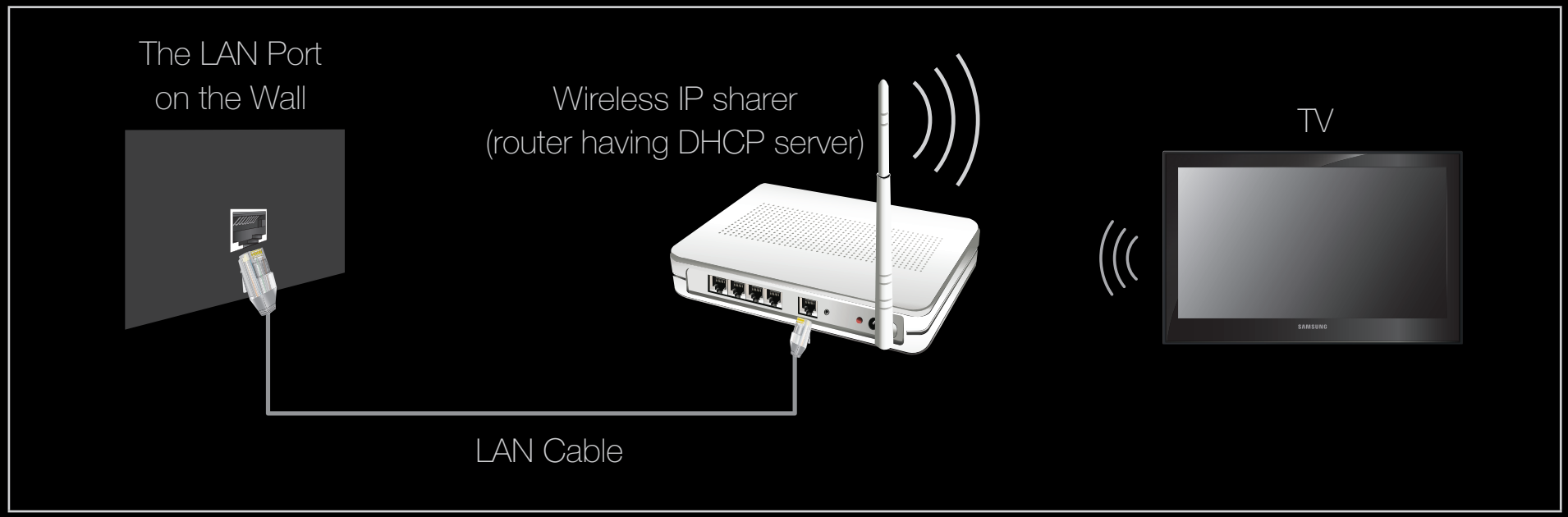


- The displayed image may differ depending on the model.

5. Enter the **IP Address**, **Subnet Mask**, **Gateway**, and **DNS Server** values. Use the number buttons on your remote to enter numbers and the arrow buttons to move from one entry field to another.
6. When done, select the **OK**.
7. The network test screen appears, and network setting is done.

❑ Connecting to a Wireless Network

You can connect your TV to your LAN through a standard wireless router or modem.



TV supports the IEEE 802.11a/b/g and n communication protocols. Samsung recommends using IEEE 802.11n. When you play video over a network connection, the video may not played smoothly.

NOTE

- To use a wireless network, your TV must be connected to a wireless IP sharer (either a router or a modem). If the wireless IP sharer supports DHCP, your TV can use a DHCP or static IP address to connect to the wireless network.
- Select a channel for the wireless IP sharer that is not currently being used. If the channel set for the wireless IP sharer is currently being used by another device nearby, this will result in interference and communication failure.

- If you apply a security system other than the systems listed below, it will not work with the TV.
- If Pure High-throughput (Greenfield) 802.11n mode is selected and the Encryption type is set to WEP, TKIP or TKIP AES (WPS2Mixed) for your AP, Samsung TVs will not support a connection in compliance with new Wi-Fi certification specifications.
- If your AP supports WPS (Wi-Fi Protected Setup), you can connect to the network via PBC (Push Button Configuration) or PIN (Personal Identification Number). WPS will automatically configure the SSID and WPA key in either mode.

  ✎ If your router, modem, or device is not certified, it may not connect to the TV.

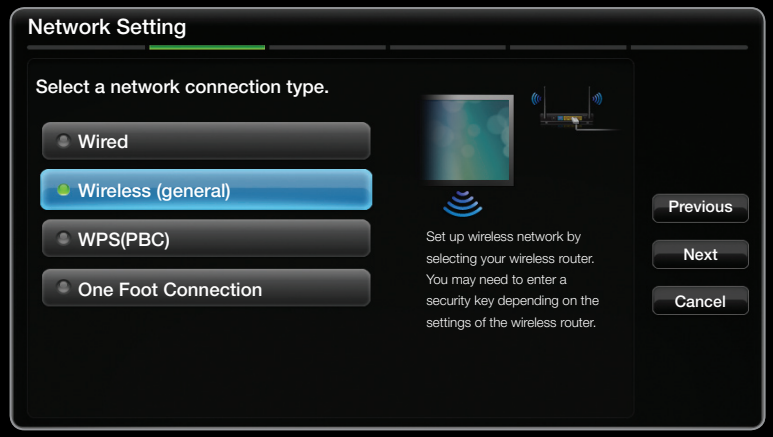
- Connection Methods: You can setup the wireless network connection on six ways.
  - Auto Setup (Using the Auto Network Search function)
  - Manual Setup
  - **WPS(PBC)**
  - **Ad Hoc**
  - **One Foot Connection**
  - **SWL(Samsung Wireless Link)**

Network Setup (Auto)

Most wireless networks have an optional security system that requires devices that access the network to transmit an encrypted security code called an Access or Security Key. The Security Key is based on a Pass Phrase, typically a word or a series of letters and numbers of a specified length you were asked to enter when you set up security for your wireless network. If you use this method of setting up the network connection, and have a Security Key for your wireless network, you will have to enter the Pass Phrase during the setup process.

How to set up automatically

1. Go to **Network Settings** screen. To enter it, follow the directions of **Network Settings**.
2. Select the **Wireless** (**general**).
3. The **Network** function searches for available wireless networks. When done, it displays a list of the available networks.
4. In the list of networks, press the ▲ or ▼ button to select a network, and then press the **ENTER** ↵ button.


Network Setting
Select a network connection type.
Wired
Wireless (general)
WPS(PBC)
One Foot Connection
Set up wireless network by selecting your wireless router. You may need to enter a security key depending on the settings of the wireless router.
Previous
Next
Cancel

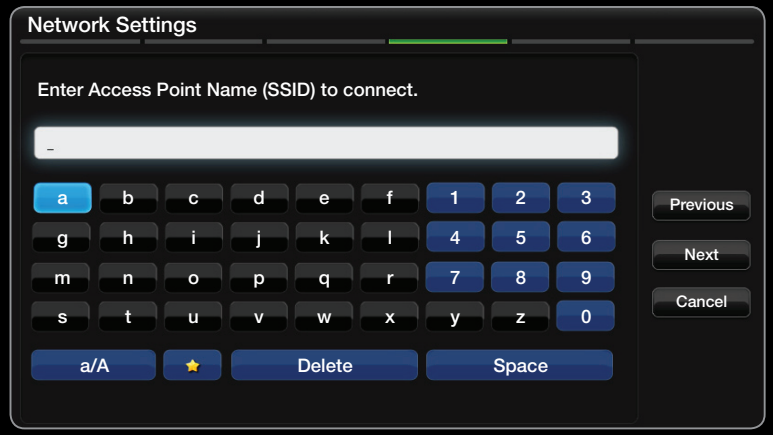
- The displayed image may differ depending on the model.

If the wireless router is set to Hidden (Invisible), you have to select **Add Network** and enter the correct **Network Name** (**SSID**) and **Security key** to establish the connection.

5. If the **Security** screen pop-up appears, go to step 6. If you select the wireless router which does not have security, go to step 7.

6. If the wireless router has security, enter the Security key (Security or PIN), then select **Next**.

   - When you enter the Security key(Security or PIN), use ▲ / ▼ / ◀ / ▶ buttons on your remote to select number/ characters.
   - You should be able to find the Pass Phrase on one of the set up screens you used to set up your router or modem.


Network Settings
Enter Access Point Name (SSID) to connect.
a b c d e f 1 2 3
g h i j k l 4 5 6
m n o p q r 7 8 9
s t u v w x y z 0
a/A
Delete
Space
Previous
Next
Cancel

- The displayed image may differ depending on the model.

7. The network connection screen appears, and network setting is done.

- If it fails to set Security key(Security or PIN), select **Reset** or **IP Settings**.
- If you want to set connection manually, select the **IP Settings**. Refer to following “How to set up manually”.

Getting the Network Connection Values

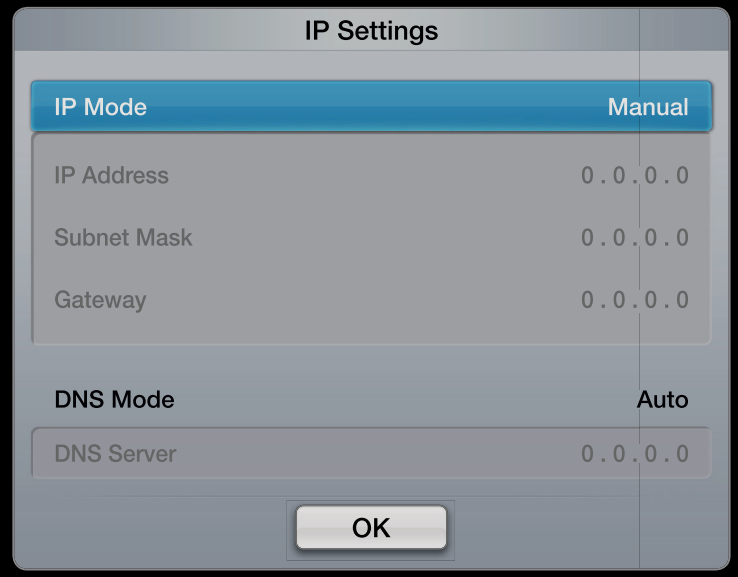
To get the Network connection values on most Windows computers, follow these steps:

1. Right click the Network icon on the bottom right of the screen.
2. In the pop-up menu that appears, click Status.
3. On the dialog that appears, click the Support tab.
4. On the Support Tab, click the Details button. The Network connection values are displayed.

How to set up manually

To set up your TV's cable network connection manually, follow these steps:

1. Follow Steps 1 through 7 in the "How to set up automatically" procedure.
2. Select the **IP Settings** on network test screen.
3. Set **IP Mode** to **Manual**.
4. Press the ▼ button on your remote to go to the first entry field.



- The displayed image may differ depending on the model.

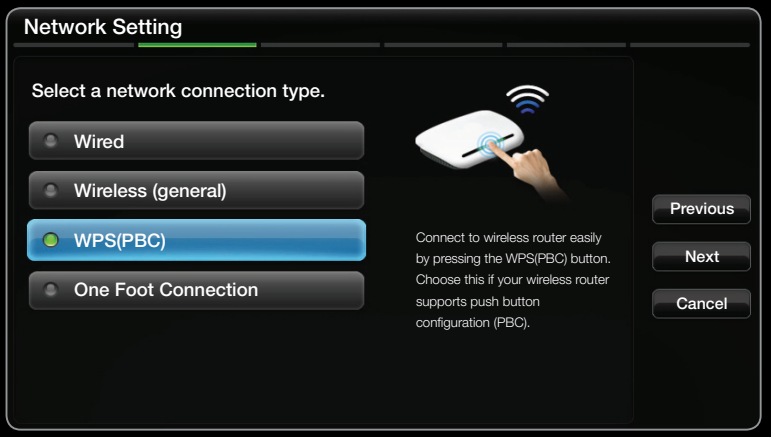
5. Enter the **IP Address**, **Subnet Mask**, **Gateway**, and **DNS Server** values. Use the number buttons on your remote to enter numbers and the arrow buttons to move from one entry field to another.
6. When done, select the **OK**.
7. The network connection screen appears, and network setting is done.

Network Setup (WPS(PBC))

How to set up using WPS(PBC)

If your router has a WPS(PBC) button, follow these steps:

1. Go to **Network Settings** screen. To enter it, follow the directions of **Network Settings**.
2. Select the **WPS(PBC)**.
3. Press the WPS(PBC) button on your router within 2 minutes. Your TV automatically acquires all the network setting values it needs and connects to your network.
4. The network test screen appears, and network setting is done.



- The displayed image may differ depending on the model.

Ad Hoc Network Setup

You can connect to a mobile device supporting Ad-hoc connections without a wireless router or AP through the TV. When connected to a mobile device, you can use files on the device or connect to the Internet using the AllShare™ or Multimedia function.

✎ This function is available when **SWL (Samsung Wireless Link)** is set to **Off**.

How to set up using Ad hoc

1. Go to **Network Settings** screen. (**MENU** → **Network** → **Network Settings** → **ENTER**).
2. Select **Wireless (General)**, and press **ENTER**, then press **ENTER** again.

3. Select **Ad hoc**. The message “**Ad hoc service supports a direct connection with Wi-Fi compatible devices like a cell phone or PC. Other network services may be limited. Do you want to change the network connection?**” is displayed.
4. Select **OK**, and press **ENTER**↵. The TV searches for the mobile device.
5. When the TV finishes searching for your mobile device, input the generated **Network Name (SSID)** and **Security Key** into the device you want to connect and then connect to the network.

◀ ▶

- If network does not operate normally, check the **Network Name (SSID)** and Security key again. An incorrect Security key may cause a malfunction.
- If a device is connected once, it is displayed in the Network Setting list. When you connect to it again, you can find it in the List.

Network Settings (One Foot Connection)

The **One Foot Connection** makes it simple to connect Samsung TV to your wireless router by placing wireless router within 1 foot (25cm) from the TV. If your wireless router does not support **One Foot Connection**, you must connect using one of the other methods.

- You can check for equipment that supports One Foot Connection on www.samsung.com

How to set up using One Foot Connection

Turn on the power of wireless router and TV.

1. Go to **Network Settings** screen. To enter it, follow the directions of **Network Settings**.
2. Select the **One Foot Connection**.
3. Place the wireless router in close proximity with the TV near the WiFi transmitter giving a gap no more than 25cm.

Network Setting
Select a network connection type.
Wired
Wireless (general)
WPS(PBC)
One Foot Connection
Connect to wireless network automatically if your Wireless Router supports One Foot Connection. Select this connection type after placing the Wireless Router within 10 inches (25cm) of your TV.
Previous
Next
Cancel

- The displayed image may differ depending on the model.

- If **One Foot Connection** does not connect your TV to your AP, a pop-up window appears on the screen notifying you of the failure. If you want to try using **One Foot Connection** again, reset the wireless router disconnect the TV and then try again from Step 1. You can also choose one of the other connection setup methods.

4. The network connection screen appears, and network setting is done.
5. Place the wireless router in a desired location.

- If the wireless router settings change or you install a new wireless router, you must perform the **One Foot Connection** procedure again, beginning from Step 1.

SWL(Samsung Wireless Link)

This function lets you connect a Samsung device that supports the **WPS(PBC)** to your TV. You can connect devices to the TV even if a sharer is not connected to the TV.

- For the TV to use **SMART HUB**, the router must be connected to the wireless network.
- Only routers using the 2.4 Ghz band are supported. Routers using the 5 Ghz band are not supported.

If Your TV Fails to Connect to the Internet

Your TV may not be able to connect to the Internet because your ISP has permanently registered the MAC address (a unique identifying number) of your PC or modem, which it then authenticates each time you connect to the Internet as a way of preventing unauthorized access. As your TV has a different MAC address, your ISP can not authenticate its MAC address, and your TV can not connect.

To resolve this problem, ask your ISP about the procedures required to connect devices other than a PC (such as your TV) to the Internet.

If your Internet service provider requires an ID or password to connect to the Internet, your TV may not be able to connect to the Internet. If this is the case, you must enter your ID or password when connecting to the Internet.

The internet connection may fail because of a firewall problem. If this is the case, contact your Internet service provider.

If you cannot connect to the Internet even after you have followed the procedures of your Internet service provider.

❑ Setting the Time

MENU → System → Time → ENTER

■ Time

- **Clock**: Setting the clock is for using various timer features of the TV.

  The current time will appear every time you press the **INFO** button.

  If you disconnect the power cord, you have to set the clock again.

  – **Clock Mode** (**Auto** / **Manual**)

  Auto: Set the current time automatically using the time from a digital channel.

  The antenna must be connected in order to set the time automatically.

Manual: Set the current time manually.

✎ Depending on the broadcast station and signal, the auto time set up may not be correct. In this case, set the time manually.

– **Clock Set**: Set the **Date** and **Time**.

✎ Available only when **Clock Mode** is set to **Manual**.

✎ You can set the **Date** and **Time** directly by pressing the number buttons on the remote control.

– **Time Zone**: Select your time zone.

✎ This function is only available when the **Clock Mode** is set to **Auto**.

– **GMT** (**GMT-3:00** / **GMT-2:00** / **GMT-1:00** / **GMT** / **GMT+1:00** / **GMT+2:00** / **GMT+3:00** / **GMT+4:00** / **GMT+5:00** / **GMT+6:00** / **GMT+7:00** / **GMT+8:00** / **GMT+9:00** / **GMT+10:00** / **GMT+11:00** / **GMT+12:00**): Selects your time zone.

  When **Country** is set to **Others**, you can use this function.

– **DST(Daylight Saving Time)** (**Off** / **On**): Switches the Daylight Saving Time function on or off.

Using the Sleep Timer

MENU → System → Time → Sleep Timer → ENTER

- **Sleep Timer** TOOLS: Automatically shuts off the TV after a preset period of time. (30, 60, 90, 120, 150 and 180 minutes).

  To cancel **Sleep Timer**, select **Off**.

Setting the On / Off Timer

MENU → System → Time → ENTER

- **On Timer 1** / **On Timer 2** / **On Timer 3**: Three different on timer settings can be made. You must set the clock first.

  Setup: Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual** to set at you convenience. If you select **Manual**, you can set up the day you want to activate the timer.

  The ✓ mark indicates the day is selected.

- The displayed image may differ depending on the model.

Time: Set the hour and minute.

Volume: Set the desired volume level.

Source: Select **TV** or **USB** content to be played when the TV is turned on automatically. (**USB** can be selected only when a USB device is connected to the TV)

Antenna (when the **Source** is set to **TV**): Select **ATV** or **DTV**.

Channel (when the **Source** is set to **TV**): Select the desired channel.

Music / **Photo** (when the **Source** is set to **USB**): Select a folder in the USB device containing music or photo files to be played when the TV is turned on automatically.

NOTE

- If there is no music file on the USB device or the folder containing a music file is not selected, the Timer function does not operate correctly.
- When there is only one photo file in the USB, the Slide Show will not play.
- If a folder name is too long, the folder cannot be selected.

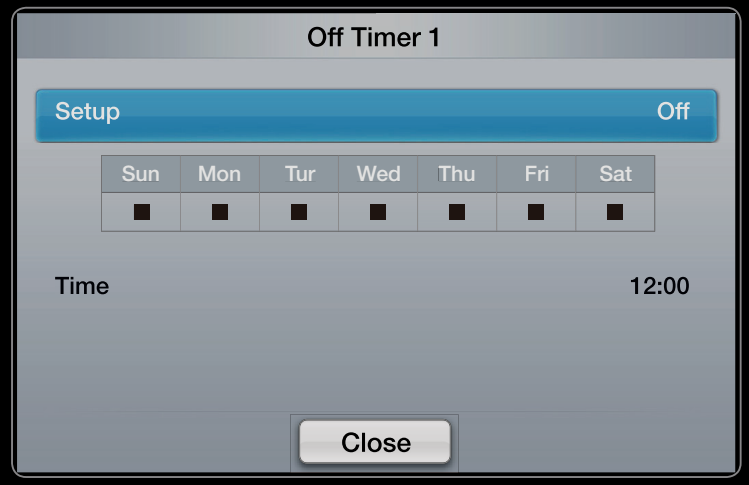
- Each USB you use is assigned its own folder. When using more than one of the same type of USB, make sure the folders assigned to each USB have different names.
- It is recommended that you use a USB memory stick and a multi card reader when using **On Timer**. The **On Timer** function may not work with USB devices with a built-in battery, MP3 players, or PMPs made by some manufacturers because these devices take a long time to be recognized.

- **Off Timer 1** / **Off Timer 2** / **Off Timer 3**: Three different off timer settings can be made. You must set the clock first.

  Setup: Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual** to set at you convenience. If you select **Manual**, you can set up the day you want to activate the timer.

  The ✓ mark indicates the day is selected.

  Time: Set the hour and minute.



- The displayed image may differ depending on the model.

❑ Locking Programme

MENU → System → Security → ENTER

■ Security

- The PIN input screen appears before the setup screen.
- Enter your 4-digit PIN. Change the PIN using the **Change PIN** option.

- **Channel Lock** (**Off** / **On**): Lock channels in **Channel** menu, to prevent unauthorized users, such as children, from watching unsuitable programme.

  ✎ Available only when the **Source** is set to **TV**.

- **Program Rating Lock** (depending on the country): Prevent unauthorized users, such as children, from watching unsuitable programme with a user-defined 4-digit PIN code. If the selected channel is locked, the "🔒" symbol will be displayed.

  ✎ The items of **Program Rating Lock** differs depending on the country.

- **Change PIN**: Change your personal ID number required to set up the TV.
- **Adult genre enabling** (**Off** / **On**): You can adjust the **Adult genre enabling**.

  The **Adult genre enabling** is available for **Freesat** antenna only.

How to watch a restricted channel

If the TV is tuned to a restricted channel, the **Program Rating Lock** will block it. The screen will go blank and the following message will appear:

This channel is blocked by **Program Rating Lock**. Please enter the PIN to unblock.

❑ Economical Solutions

■ Eco Solution

MENU → System → Eco Solution → ENTER

- **Energy Saving** (**Off** / **Low** / **Medium** / **High** / **Picture Off**) TOOLS: This adjusts the brightness of the TV in order to reduce power consumption. If you select **Picture Off**, the screen is turned off, but the sound remains on. Press any button except volume button to turn on the screen.

- **Eco Sensor** (**Off** / **On**): To enhance your power savings; the picture settings will automatically adapt to the light in the room.

  ✎ If you adjust the **Backlight** for LED TV, **Cell Light** for PDP TV the **Eco Sensor** will be set to **Off**.

  Min Backlight for LED TV , **Min cell Light** for PDP TV: When **Eco sensor** is **On**, the minimum screen brightness can be adjusted manually.

  ✎ If **Eco Sensor** is **On**, the display brightness may change (become slightly darker or brighter) depending on the surrounding light intensity.

◀ ▶

- **No-Signal Power Off** (**Off** / **15 min** / **30 min** / **60 min**): To avoid unnecessary energy consumption, set how long you want the TV to remain on if it's not receiving a signal.

  ✎ Disabled when the PC is in power saving mode.

- **Auto Power Off** (**Off** / **On**): The TV will be automatically turned off after 4 hours of being left idle to prevent overheating.

■ **Auto Protection Time (2 hours / 4 hours / 8 hours / 10 hours / Off)** for LED TV

If the screen remains idle with a still image for a certain period of time defined by the user, the screen saver is activated to prevent the formation of ghost images on the screen.

Screen Burn Protection for PDP TV

To reduce the possibility of screen burn, this unit is equipped with screen burn prevention technology. The Time setting allows you to programme the time between movement of the picture in minutes.

- **Pixel Shift** (**Off** / **On**): Using this function, you can minutely move pixels on the PDP in horizontal or vertical direction to minimize after image on the screen.

  Optimum condition for pixel shift

	Item	TV/AV/Component/HDMI/PC
Horizontal	0~4	4
Vertical	0~4	4
Time (minute)	1~4 min	4 min

- The **Pixel Shift** value may differ depending on the monitor size (inches) and mode.
- This function is not available in the **Screen Fit** mode.

- **Auto Protection Time** (**Off** / **10 min** / **20 min** / **40 min** / **1 hour**): If the screen remains idle with a still image for a certain period of time defined by the user, the screen saver is activated to prevent the formation of ghost images on the screen.
- **Scrolling**: This function removes after-images on the screen by moving all the pixels on the PDP according to a pattern. Use this function when there are remaining after images or symbols on the screen, especially when you displayed a still image on the screen for a long time.

- The after-image removal function has to be executed for a long time (approximately 1 hour) to effectively remove after-images on the screen. If the after-image is not removed after performing the function, repeat the function again.
- Press any key on the remote control to cancel this feature.

- **Side Grey** (**Light** / **Dark**): When you watch TV with the screen ratio set to 4:3, the screen is prevented from any damage by adjusting the white balance on both extreme left and right sides.

❑ Other Features

MENU → System → ENTER

■ Language

- **Menu Language**: Set the menu language.
- **Teletext Language**: Set a desired language for teletext.

  English is the default in cases where the selected language is unavailable in the broadcast.

- **Preference** (**Primary Audio Language** / **Secondary Audio Language** / **Primary Subtitle Language** / **Secondary Subtitle Language** / **Primary Teletext Language** / **Secondary Teletext Language**): Select a language, which will be the default language when a channel is selected.

Subtitle

Use this menu to set the **Subtitle** mode.

- **Subtitle** (**Off** / **On**): Switches subtitles on or off.
- **Mode** (**Normal** / **Hearing Impaired**): Sets the subtitle mode.
- **Subtitle Language**: Sets the subtitle language.

  ✎ If the programme you are watching does not support the **Hearing Impaired** function, **Normal** automatically activates even if the **Hearing Impaired** mode is selected.

  ✎ English is the default in cases where the selected language is unavailable in the broadcast.

Digital Text (Disable / Enable) for U.K

If the programme broadcasts with digital text, this feature is enabled.

MHEG (Multimedia and Hypermedia Information Coding Experts Group): An International standard for data encoding systems used in multimedia and hypermedia. This is at a higher level than the MPEG system which includes data-linking hypermedia such as still images, character service, animation, graphic and video files as well as multimedia data. MHEG is user runtime interaction technology and is being applied to various fields including VOD (Video-On-Demand), ITV (Interactive TV), EC (Electronic Commerce), tele-education, tele-conferencing,digital libraries and network games.

General

- **Game Mode** (**Off** / **On**): When connecting to a game console such as PlayStation™ or Xbox™, you can enjoy a more realistic gaming experience by selecting game mode.

  NOTE

  - Precautions and limitations for game mode

  – To disconnect the game console and connect another external device, set **Game Mode** to **Off** in the setup menu.

  – If you display the TV menu in **Game Mode**, the screen shakes slightly.

- **Game Mode** is not available when the input source is set to TV or PC.
- After connecting the game console, set **Game Mode** to **On**. Unfortunately, you may notice reduced picture quality.
- If **Game Mode** is **On**:

– **Picture Mode** is set to **Standard** and **Sound Mode** is set to **Movie**.

– **Equalizer** is not available.

- **BD Wise** (**Off** / **On**): Provides the optimal picture quality for Samsung DVD, Blu-ray and Home Theatre products which support **BD Wise**. When **BD Wise** is turned **On**, the picture mode is automatically changed to the optimal resolution.

  ✎ Available when connecting Samsung products that support **BD Wise** through a HDMI cable.

- **Light Effect** (**Off** / **In Standby** / **Watching TV** / **Always**) for LED 8000: You can turn the LED on/off on the front of TV. Turn it off to save power or if the LED is too bright for you.

  Set the **Light Effect** to **Off** to reduce the power consumption.

  The colour of light may vary depending on the model.

- **Boot Logo** (**Off** / **On**): Display Samsung logo when the TV is turned on.
- **TV Name**: Sets the TV name so you can find it easily on a mobile device.

  If you select User Input, you can type on the TV using the OSK (On Screen Keyboard).

Anynet+(HDMI-CEC)

For details on set up options, refer to the “Anynet+(HDMI-CEC)” instructions.

DivX® Video On Demand

Shows the registration code authorized for the TV. If you connect to the DivX web site and register, you can download the VOD registration file. If you play the VOD registration using **Videos** under **SMART HUB**, the registration is completed.

✎ For more information on DivX® VOD, visit “http://vod.divx.com”.

■ **Network Remote Control (Off / On)**

Turn on/off or give permission to Samsung mobile phones devices. You must have a Samsung Mobile phone / device which supports Wireless Remote Control. For more details, refer to each device's manual.

Common Interface

- **CI Menu**: This enables the user to select from the CAM-provided menu. Select the CI Menu based on the menu PC Card.
- **Application Info**: View information on the CAM inserted into the CI slot and on the “CI or CI+ CARD” which is inserted into the CAM. You can install the CAM anytime whether the TV is on or off.

  1. Purchase a CI CAM module at your nearest dealer or by phone.
  2. Firmly insert the “CI or CI+ CARD” into the CAM in the direction of the arrow.
  3. Insert the CAM with the “CI or CI+ CARD” into the common interface slot, in the direction of the arrow so that it aligns parallel with the slot.
  4. Check if you can see a picture on a scrambled signal channel.

❑ Picture In Picture (PIP)

MENU → System → PIP → ENTER

■ PIP TOOLS

You can watch the TV tuner and one external video source simultaneously. **PIP** (Picture-in-Picture) does not function in the same mode.

NOTE

- When Double (,) mode has been set in PIP, the Picture Size cannot be set.
- For PIP sound, refer to the **Sound Select** instructions.
- If you turn the TV off while watching in **PIP** mode, the PIP window will disappear.
- PIP is not supported in 3D mode.

- You may notice that the picture in the PIP window becomes slightly unnatural when you use the main screen to view a game or karaoke.
- While **Channel Lock** and **SMART HUB** are in operation, the **PIP** function cannot be used.
- PIP settings

Main picture	Sub picture
Component, HDMI, PC	TV

- **PIP** (**Off** / **On**): Activate or deactivate the PIP function.
- **Channel**: Select the channel for the sub-screen.
- **Size** (/ / /): Select a size for the sub-picture.
- **Position** (/ / /): Select a position for the sub-picture.
- In **Double** (,) mode, Position cannot be selected.
- **Sound Select** (**Main** / **Sub**): You can choose the desired sound (**Main** / **Sub**) in **PIP** mode.

❑ Support

■ e-Manual

MENU → Support → e-Manual → ENTER

You can read the introduction and instructions about the TV features stored in your TV.

For the detailed information about e-Manual Screen, refer to “How to view the e-Manual” in User Manual.

Self Diagnosis

MENU → Support → Self Diagnosis → ENTER

Self Diagnosis might take few seconds, this is part of the normal operation of the TV.

- Picture Test (Yes / No): Use to check for picture problems.
- Yes: If the test pattern does not appear or there is noise in the test pattern, select Yes. There may be a problem with the TV. Contact Samsung's Call Centre for assistance.
- No: If the test pattern is properly displayed, select No. There may be a problem with your external equipment. Please check your connections. If the problem persists, refer to the external device's user manual.

- **Sound Test** (**Yes** / **No**): Use the built-in melody sound to check for sound problems.

  ✎ If you hear no sound from the TV's speakers, before performing the sound test, make sure **Speaker Select** is set to **TV Speaker** in the **Sound** menu.

  ✎ The melody will be heard during the test even if **Speaker Select** is set to **External Speaker** or the sound is muted by pressing the **MUTE** button.

  - **Yes**: If you can hear sound only from one speaker or not at all during the sound test, select Yes. There may be a problem with the TV. Contact Samsung's Call Centre for assistance.
  - **No**: If you can hear sound from the speakers, select No. There may be a problem with your external equipment. Please check your connections. If the problem persists, refer to the external device's user manual.

- **Signal Information**: (digital channels only) HDTV channel's reception quality is either perfect or the channels are unavailable. Adjust your antenna to increase signal strength.
- **Troubleshooting**: If the TV seems to have a problem, refer to this description.

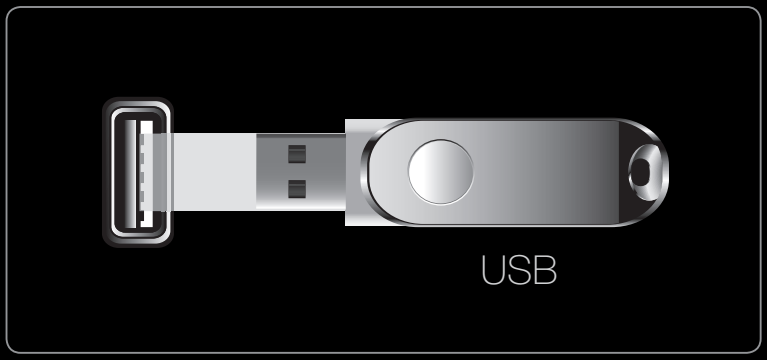
  If none of these troubleshooting tips apply, contact the Samsung customer service centre.

Software Upgrade

Software Upgrade can be performed via a broadcasting signal or by network connection or downloading the latest firmware from “www.samsung.com” to a USB memory device.

Installing the Latest Version

- **By USB**: Insert a USB drive containing the firmware upgrade file, downloaded from “www.samsung.com,” into the TV. Please be careful not to disconnect the power or remove the USB drive until upgrades are complete. The TV will be turned off and on automatically after completing the firmware upgrade. When software is upgraded, video and audio settings you have made will return to their default settings. We advise you to to write down your settings so that you can easily reset them after the upgrade.



- The displayed image may differ depending on the model.

- **By Online**: Upgrade the software using the Internet.
  - First, configure your network. For detailed procedures on using the Network Setup, refer to the “Network Connection” instructions.
  - If the internet connection doesn’t operate properly, the connection may be broken. Please retry downloading. If the problem persists, download by USB and upgrade.
- **By Channel**: Upgrade the software using the broadcasting signal.
  - If the function is selected during the software transmission period, software will be automatically searched and downloaded.
  - The time required to download the software is determined by the signal status.

- **Alternative Software** (backup): If there is an issue with the new firmware and it is affecting operation, you can change the software to the previous version.

  ✎ If the software was changed, existing software is displayed.

- **Standby Mode Upgrade**: A manual upgrade will be automatically performed at selected time. Since the power of the unit is turned on internally, the screen may be turned on slightly for the product. This phenomenon may continue for more than 1 hour until the software upgrade is complete.

Contact Samsung

View this information when your TV does not work properly or when you want to upgrade the software. You can find information regarding our call centres, and how to download products and software.

❑ Using the 3D function

MENU → Picture → 3D → ENTER

■ 3D

This exciting new feature enables you to view 3D content. In order to fully enjoy this feature, you must purchase a pair of Samsung 3D Active Glasses (SSG-3100GB, SSG-3300GR, SSG-3300CR, SSG-3700CR) to view 3D video.

❑ Viewing TV using the 3D function

IMPORTANT HEALTH AND SAFETY INFORMATION FOR 3D PICTURES.

Read and understand the following safety information before using the TV's 3D function.

⚠ WARNING

- Some viewers may experience discomfort while viewing 3D TV such as dizziness, nausea and headaches. If you experience any such symptom, stop viewing 3D TV, remove 3D Active Glasses and rest.
- Watching 3D images for an extended period of time may cause eye strain. If you feel eye strain, stop viewing 3D TV, remove your 3D Active Glasses and rest.

- A responsible adult should frequently check on children who are using the 3D function. If there are any reports of tired eyes, headaches, dizziness, or nausea, have the child stop viewing 3D TV and rest.
- Do not use the 3D Active Glasses for other purposes (such as general eyeglasses, sunglasses, protective goggles, etc.)
- Do not use the 3D function or 3D Active Glasses while walking or moving around. Using the 3D function or 3D Active Glasses while moving around may result in injuries due to running into objects, tripping, and/or falling.

- **3D Mode**: Select the 3D input format.

  ✎ If you want to feel the 3D effect fully, please wear the 3D Active Glasses first, and then select 3D Mode from the list below that provides the best 3d viewing experience.

  ✎ When watching 3D images, turn on 3D Active Glasses.

3D Mode		Operation
	Off	Turns the 3D function off.
	2D → 3D	Changes a 2D image to 3D.
	Side by Side	Displays two images next to each other.
	Top & Bottom	Displays one image above another.
	Line by Line for LED TV	Displays the images for the left and right eye alternately in rows.

3D Mode		Operation
	Vertical Stripe for LED TV	Displays the images for the left and right eye alternately in columns.
	Checker Board for LED TV	Displays the images for the left and right eye alternately in pixels.
	Frame Sequential for LED TV	Displays the images for the left and right eye alternately in frames.

- Some file format may not supported the “2D → 3D.”
- “Side by Side” and “Top & Bottom” are available when the resolution is 720p, 1080i and 1080p in DTV, HDMI and USB mode or when set to PC and the PC is connected through an HDMI / DVI cable.
- “Vertical Stripe”, “Line by Line” and “Checker Board” are available when the resolution is set to PC and the PC is connected through an HDMI / DVI cable.
- “Frame Sequential” displays the frequency (60Hz only) when the resolution is set to PC.

- **3D Effect** for LED TV: Adjust 3D effects like perspective and depth for your preferred 3D viewing experience.

  3D Effect (**Auto** / **Manual**)

  – **Auto**: Automatically adjust the perspective and depth settings in accordance with the 3D input source.

  – **Manual**: Manually adjust the perspective and depth settings.

- **3D Perspective** (**-5~+5**): Adjust overall 3D perspective of on-screen image.
- **Depth** (**1~10**): Adjust overall depth.
- **L/R Change** (**L/R Image** / **R/L Image**): Swap the left and right pictures.

- **3D** → **2D** (**Off** / **On**): Displays the image for the left eye only.

  ✎ This function is deactivated when **3D Mode** set to “2D → 3D” or Off.

- **3D Auto View** (**Off** / **Message Alert** / **On**): If **3D Auto View** is set to **On**, a “Side by Side” format HDMI signal with one of the resolutions below is automatically switched to 3D. If you set **3D Auto View** to **Message Alert**, a pop up message window appears when the TV receives a 3D signal. In this case, press the **3D** button because the TV does not switch to 3D.

  ✎ If a 3D failure occurs due to a 3D information error, set **3D Auto View** to **Off** and manually select a **3D Mode** using the **3D** button or corresponding menu.

  ✎ In **USB** mode, this function is available only when the resolution is 1280 X 720p, 1920 X 1080i or 1920 X 1080p.

- **3D Optimisation** for LED TV: The overall adjustment of 3D effect.

Support resolution (16:9 only)

Resolution	Frequency (Hz)
1280 x 720p	25 / 50 Hz
1920 x 1080i	25 / 50 Hz
1920 x 1080p	25 / 50 Hz

Resolution supported for HDMI PC mode

The resolution for HDMI PC mode is optimized to 1920 x 1080 input.
An input resolution other than 1920 x 1080 may not be displayed properly in 3D display or full screen mode.

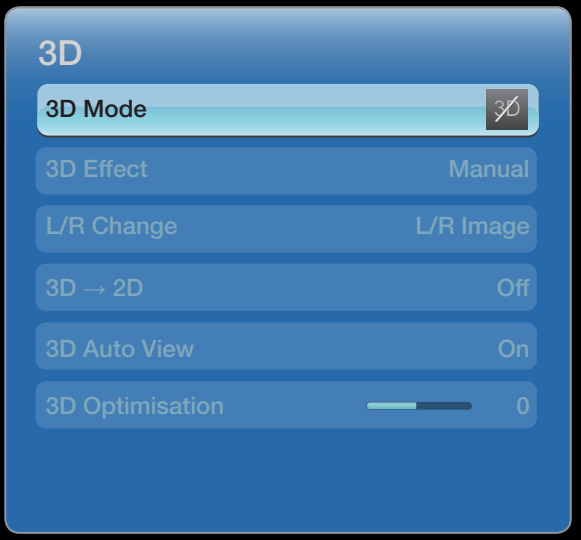
How to watch the 3D image

- Method 1

  Some 3D modes may not be available depending on the format of the image source.

  To watch in 3D, wear 3D Active Glasses and press the power button on the glasses.

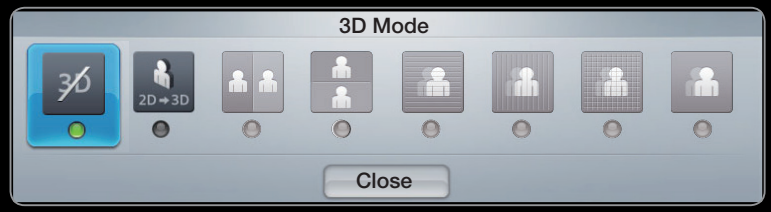
1. Press the **MENU** button on your remote, use the ▲ or ▼ button to select **Picture**, and then press the **ENTER** ↵ button.
2. Use the ▲ or ▼ button to select **3D**, and then press the **ENTER** ↵ button.



- The displayed image may differ depending on the model.

3. Use the ▲ or ▼ button to select **3D Mode**, and then press the **ENTER** ↵ button.

4. Using the ◀ or ▶ buttons on your remote control, select the **3D Mode** of the image you want to view.



- The displayed image may differ depending on the model.

- Method 2

1. Press the 3D button on your remote. and then you can view the **3D** image.
2. If you want to change 3D options (such as **3D Effect**), press the **MENU** button on your remote, and then select **Picture**.
3. Go to Step 3 in the “Method 1”, and follow the directions from that point on.

   To exit the **3D** mode, press the **3D** button on your remote again.

Supported formats and operating specifications for Standard HDMI 3D

The 3D formats indicated below are recommended by the HDMI association and must be supported.

Source signal format	Standard HDMI 1.4 3D
1920 x 1080p @ 24 Hz x 2	1920 x 2205p @ 24 Hz
1280 x 720p @ 50 / 60 Hz x 2	1280 x 1470p @ 50 / 60 Hz

For the Standard HDMI 3D format with 24Hz, the TV is optimized as follows:

- **Resolution First Display Mode**: If **Motion Plus** is set to **Off**, **Clear** or **Standard**, you can watch the video at a high resolution optimized to the resolution of the source video.
- **Judder Reduction Display Mode**: When **Motion Plus** is set to **Smooth** or **Custom**, you can watch a smooth picture without judder.

NOTE

- **3D** mode is automatically disabled in following cases: when changing a channel or the input source, or accessing **SMART HUB** or **e-Manual**.
- **3D Mode** is set to its memorized configuration value automatically when you changing the input source.
- Some **Picture** functions are disabled in **3D** mode.
- **PIP** is not supported in **3D** mode.

- 3D Active Glasses from Samsung's previous product (IR type) or other manufacturers not be supported.
- When the TV is initially powered on, may take some time until the 3D display is optimized.
- The 3D Active Glasses may not work properly if there is any other 3D product or electronic devices turned on near the glasses or TV. If there is a problem, keep other electronic devices as far away as possible from the 3D Active Glasses.

- Some files are not supported in the 2D to 3D function.
- Be sure to stay within the viewing angle and optimum TV viewing distance when watching 3D pictures. Otherwise, you may not be able to enjoy proper 3D effects.
- The ideal viewing distance should be three times or more the height of the screen. We recommend sitting with viewer’s eyes on a level with the screen.

❑ Getting Started with Smart Hub

Features

Search

Easily search and access content from diverse sources (e.g. applications, Your Video, AllShare).

SOCIAL TV

Share your TV viewing experience with your friends via social networking service (SNS).

Your Video

Enjoy your movie watching with a customized video on demand (VOD) recommendation service.

* This feature is limited to certain regions

Web Browser

Access the web and watch TV at the same time.

SMART HUB brings useful and entertaining contents and services directly from the web to your TV.

The Gateway to all content integrated in one place

- It’s all integrated to guide you to easier and diverse entertainment choices.

- The displayed image may differ depending on the model.

- Control your entertainment life with easy and simple user friendly UI.
- Access to diverse Apps that are adding up every day.
- Customize your TV, by App grouping & sorting to your taste.

Screen Display

You can search for various types of content that can be used on your TV. Enter a keyword to search for media, various applications, or online information that you can use on the TV.

TV Screen: Displays the current input source screen..

Exit: Exits the **SMART HUB**.

Application service: You can experience various service by provided samsung.

Recommended Applications: Displays the recommended service by Samsung. You are not able to add or delete a service in this list.

Installed Applications list: Displays the installed applications in the TV.

Information: Displays notices, new applications, and advertisements brought to you by Samsung product introductions.

Controls:

- A Red (**Login**): To log in to **SMART HUB** .
- B Green (**Sort by**): To sort the applications by category.
- C Yellow (**Edit Mode**): You can edit the applications (such as move, making folder).
- D Blue (**Settings**): Edit and configure applications and Smart Hub settings.

The colour buttons may work differently depending on the application.

NOTE

- Configure the network settings before using **SMART HUB**. For more information, refer to **Network Settings**.
- Unsupported fonts within the provider's content will not display normally.
- Slow responses and/or interruptions may occur, depending on your network conditions.
- Depending on the region, English may be the only language supported for application services.
- This feature is not available in some locations.

- If you experience a problem using a application, please contact the content provider.
- According to circumstances of the contents provider, an application's updates or t he application itself may be discontinued.
- Depending on your country's regulations, some applications may have limited service or not be supported.

Account Login

For an application with multiple accounts, select ▼ to access the different accounts.

- For a more enjoyable application experience, register and log in to your account.
- For instructions on creating an account, refer to “How to create an **Smart TV ID**”.

- The displayed image may differ depending on the model.

1. Press the Red button in the **SMART HUB** home page.
2. Select ▼ by pressing the ▲ / ▼ / ◀ / ▶ button. The account list appears.

   If you want to create an account, select **Create Account** then the create account OSD window will appear.
3. Select the desired **Smart TV ID**, and the press the **ENTER** button.
4. After selecting **Smart TV ID**, enter the **Password** using the remote control.

   When login succeeds, **Smart TV ID** will be displayed on the screen.

How to create a Smart TV ID

Before creating a **Smart TV ID**, you should download the application first on the **Samsung Apps**.

1. Press the Red button. The Login screen appears.
2. Select **Create Account**. The **Create Account** screen will appear.
3. Press the **ENTER** button to enter a new **Smart TV ID**. The Keypad screed will appear.
4. Using the keypad screen, enter a **Smart TV ID**.

   A **Smart TV ID** must be created in “sample@sample.com” form.

Using the Keypad

Pressing the ⊜/◪ on the remote while you are using the Screen Keypad enables you to change the text fields to lower case, capitalized case, upper case, numbers and icons.

Using the Green B button on the remote control to change the input mode. (T9/ABC)

You can use this Screen Keypad in a several **SMART HUB** applications.

Here is how to input characters using keypad of ABC type.

4-1. For example, suppose that you want to input “105Chang”.

4-2. Press the ⊜/◪ on the remote 3 times to change the input mode from lower case to numbers.

4-3. Press the 1, 0 and 5 button in numerical order.

4-4. Press the ⊜/◪ on the remote 4 times to change the input mode from numbers to upper case.

4-5. Press the 2 button on the remote 3 times to input C.

4-6. Press the ⊜/◪ on the remote 3 times to change the input mode from upper case to lower case.

4-7. Press buttons on the remote to input the rest of “Chang”. When done, press the **ENTER** ↵ button.

5. Using the remote control, enter the **Password**.
   - Password must be 6~12 words.
   - You can delete the entered character using the **PRE-CH** button.
   - Using the ◄◄ (REW) or ►► (FF) button, you can select icon you want to enter in icon keypad screen.
6. Account created. You can use the services provided by all users of your Samsung TV with a single login by linking the users' account to the TV ID. If you want to register a service site ID, select Yes. Service Site list will appear on the screen.

7. Select Register of the Service Site you want, then press the **ENTER** button.
8. Using number buttons, enter your application site ID and password. Then press the **ENTER** button.
9. Registered successfully. If you add another service site, select Yes. then press the **ENTER** button, go to step 5.
10. When completed, select OK. Then press the **ENTER** button.

❑ Setting up Smart Hub

■ Settings

Configure **SMART HUB** settings from this screen. Highlight **Settings** using the ▲ and ▼ buttons and press the **ENTER** ↵ button.

- The displayed image may differ depending on the model.

- **Account Management**

  Register Service Account: Register login information for service sites.

  Change Password: Change account password.

  Remove From TV Account List: Delete an account from the list of accounts.

  Deactivate Account: Withdraw membership from **SMART HUB**.

- **Service Manager**

  Ticker Autorun (**Off** / **On**): You can set **Ticker Autorun** to come on when powering on the TV.

  - The **Ticker** function allows you to view content from the current input source and ticker data at the same time.
  - Depending on your country, **Ticker** application may have a different service or not be supported.

  Channel Bound Service (**Off** / **On**): Some channels support applications as an Internet data service, allowing you to access the Internet service while watching TV.

  - Only available if supported by the broadcaster

- **Reset**: Resets **SMART HUB** settings to factory default settings. If you want reset **SMART HUB**, Enter password.
- **Properties**

  More: Display information about **SMART HUB**.

  Terms of Service Agreement: Display the **Terms of Service Agreement**.

❑ Using the Smart Hub service

■ Samsung Apps

Samsung Apps is a store for downloading applications to be used on Samsung TV / AV equipment.

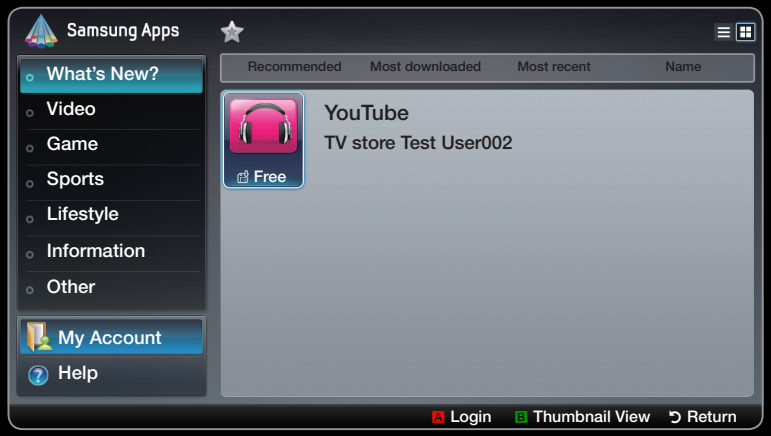
Users can enjoy a variety of contents such as videos, music, photos, games, useful information etc. using the downloaded applications.

Additional applications will be available in the future.

◀ ▶

Using the colour buttons with the Samsung Apps.

- A Red (**Login**): To log in to the internet service.
- B Green (**List View** / **Thumbnail View**): To change the view mode.
- **Return**: Moves to previous menu.



- The displayed image may differ depending on the model.

Using the Samsung Apps by category

The following categories are available:

- **What's New?**: Displays newly registered applications.
- **Video**: Displays various video media such as movies, TV shows and short length videos.
- **Game**: Displays various games such as sudoku and chess.
- **Sports**: Displays various sports media such as match information, images and short length video.
- **Lifestyle**: Includes various lifestyle media services such as music, personal photo management tools and social networking such as Facebook and Twitter.

- **Information**: Includes various information services such as news, stocks and weather.
- **Other**: Includes other miscellaneous services.
- **My Account**: Displays the application list and your App cash balance.

  ✎ Starting in the middle of 2010 (US and Korea only), you can purchase cyber-cash for buying applications through tv.samsungapps.com.
- **Help**: If you have questions about **Samsung Apps**, check this section first.

◀ ▶

Web Browser

(May not be available, depending on your country.)

Using the **Web Browser** function provided by the **SMART HUB**, you can surf the Internet on your TV.

- When the Web Browser opens, the cursor is in Tab Mode. In Tab Mode, the cursor highlights text or objects, or surrounds them with a blue rectangle. To move the cursor in Tab Mode, use the ◀ / ▶ / ▲ / ▼ buttons. Press **ENTER** ↵ to select. To scroll the screen ▲ or ▼ down, use the ◀ or ▶ buttons.
- You can change from Tab Mode to Pointer Mode by pressing the Yellow **C** button. Use the arrow buttons to move the pointer. Press **ENTER** ↵ to select.

The **Web Browser** has a series of icons across the top of the screen. With these icons, you can easily use the **Web Browser**. The icons are described below, starting with the icon on the far left of the screen.

- **Back**: Moves to the previous web page.

  If there is no saved previous web page, this icon will not work.

- **Forward**: Moves to the next web page if there are saved URLs.

  If there is no saved next web page, this icon will not work.

Refresh / **Stop**: Refreshes the current page or stops the current connection from loading.

Home: Goes to the URL you specified as your the home page.

Zoom: You can select a zoom level of **50%**, **75%**, **100%**, **125%**, **150%**, **200%**, **400%** and **Fit to Screen**.

Bookmarks: Displays the **Bookmarks List** screen. You can set the current page as a bookmarks or select a Favourite page to visit from the bookmarks page list.

– **Import bookmarks**: Imports the bookmark list from USB device. You should connect a USB storage to use this function.

History: Displays the **History** screen. You can select a web page to visit in the History list. You can also sort the History list by **Date**, **Title**, or **Frequency**. To sort, select the **Sort Criteria** button in the upper right corner of the **History** screen and then press **ENTER**↵.

When you highlight a page, the **Options** button appears on the right. Access the Options by selectng the Options button, and then pressing **ENTER**↵. In the Options pop-up you can **Delete** the selected page from the history list, **Delete All** pages from the **History** list, or **Add to Bookmark** the selected page to **Bookmark** list.

URL: Shows the URL of the current page. If you press the **ENTER**↵ button, the URL pop-up appears. Press **ENTER**↵ again and you can key in a new a URL directly. You can also select a page to visit on the displayed Page list.

In addition, you can sort the Page list by **Date**, **Title**, or **Frequency**. To sort, select the **Sort Criteria** button in the upper right corner of the **URL** pop-up and then press **ENTER**↵.

Windows List: Displays images of open windows (the **Windows List**). You can add the current page to the list (using Add a new page), select and access a page in the list, select and close a page in the list, or close all pages. The selected page is the enlarged page in the Centre.

✎ A new web browser tab automatically displays the home page.

Search: Lets you search the web. When you access the **Search** entry field and press **ENTER**↵, the Browser displays a pop-up with a text entry keyboard and a text entry field on the right. The keyboard functions much like a cell phone texting keypad.

On the left of the pop up is the name of the current search engine. Select the search engine and press **ENTER**↵, and you can select a different search engine or add a search engine to the current list.

Settings: You can configure the **Web Browser** settings.

Using the Coloured and function buttons with the Web Browser

- A Red (**Back**): Moves to previous page. If there is no saved previous web page, this button will not work.
- B Green (**Zoom**): You can select a screen size of **50%**, **75%**, **100%**, **125%**, **150%**, **200%**, **400%** and **Fit to Screen**.
- C Yellow (**Pointer Mode** / **Tab Mode**): You can change the cursor to **Pointer Mode** or **Tab Mode**.
- D Blue (**PIP**): Turns **PIP** on or off. With **PIP** on, you can watch TV while using the **Web Browser**.

- **TOOLS** (**Options**): Displays the icons from the top of the page in a toolbar in the middle of the screen. Press **RETURN** to close.
- (**Scroll Up** / **Down**): You can scroll the page up or down.
- **RETURN**: Return to the previous screen or close the **Web Browser**. You can also close the Browser by pressing the **EXIT** button.

Setting up the Web Browser

Press the **TOOLS** button or move the cursor to the top of the screen, and then select the **Settings** icon.

- **PIP Settings**: Lets you configure the **PIP** function.

  PIP Position: Select a position for the **PIP** sub-picture.

  Sound Select: Select the audio source you will hear - **Main** or **Sub** - when **PIP** is on.

- **Reading Tools**: Provides an easy-to-read page by enlarging the main text.
- **Clean Site**: When **Clean Site** is on, you can only access the web pages registered in **Clean Site**. Use Clean Site to restrict your children's access to appropriate web pages.

  Clean Site Feature (**On** / **Off**): Turn **Clean Site**, **on** and **off**.

  Clean Site Password Manage: Enter a new password.

- **Add Current Site**: Lets you add the currently displayed web site to the Clean Site list.

  Clean Site Manage: Lets you key in URLs to add to the **Clean Site** List and delete sites from the **Clean Site** List.

  ✎ If you turn **Clean Site** on and have not added any sites to the **Clean Site** List, you will not be able to access any Internet sites.

- **Private Browsing**: Enable or disable the **Browser Privacy Mode**. When the **Browser Privacy Mode** is enabled, the browser does not retain the URLs of sites you visit. If you want to enable **Private Browsing**, Select **Yes**. If the **Private Browsing** function is running, the “Stop” icon appears in front of the URL at the top of the screen.To disable **Private Browsing**, select it again when **Private Browsing** is enabled.

- **Option**: You can configure **Web Browser** options.

  Set as homepage: You can set the home page.

  Most visited: Set the most frequently visited URL as the home page.

  Current Page: Sets the current page as the home page.

  Enter address: Lets you key in the URL of the page you want for your home page. The keyboard works like a cell phone texting keyboard.

  Pop-up blocker: Turns the **Pop-up blocker** on or off.

  Ad Block Settings: You can determine whether to block advertisements and select the URLs for which advertisements are blocked.

– **Ad Blocker** (**On** / **Off**): Turns the **Ad Blocker** on or off.

– **Block current page**: Adds the current page to the blocked list.

– **Manage blocked sites**: Display the **Advertisement Block Site Management** screen. You can add a website for which advertisements should be blocked by directly keying in the URL, or you can delete a website from the list.

General: You can delete your personal information.

– **Delete search history**: Deletes the website history.

– **Delete browsing data**: Deletes Internet access information such as cookies.

– **Restore Default Settings**: Reset all web browser settings to the factory defaults.

Encoding: You can set the Encoding setting for webpages to Automatic or Manual.

- **Auto select** (**On** / **Off**): Select the Encoding settings for webpages automatically.
- **Settings**: Select the Encoding settings for webpages manually. Select an encoding format from the encoding format list.

Pointer: You can set the speed of the cursor when the cursor is set to **Pointer Mode**.

- **Pointer Speed** (**Slower** / **Slow** / **Standard** / **Fast** / **Faster**): Select a pointer speed.

Web browser information: You can view the version information of the **Web Browser**.

Skype

Skype created a little piece of software that makes communicating with people around the world easy and fun. With Skype you can say hello or share a laugh with anyone, anywhere. And if both of you are on Skype, it’s free. Communicate with people around the world!

- The displayed image may differ depending on the model.

Other company’s TV Cameras are not compatible with Skype on your TV.

For more information, download the Skype user's manual from “www.samsung.com.”

[Legal Statement]

Due to the various capabilities of products featuring the Samsung Smart Hub - Content Service, as well as limitations in the available content, certain features, applications, and services may not be available on all devices or in all territories.

Some features on Smart Hub may also require additional peripheral devices or membership fees that are sold separately. Please visit http://www.samsung.com for more information on specific device information and content availability. The services and availability of content through Smart Hub are subject to change from time to time without prior notice.

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❑ About AllShare™

AllShare™ connects your TV and compatible Samsung mobile phones / devices through a network. You can play media contents including videos, photos and music saved on your mobile phones or the other devices (such as your PC) by controlling them on the TV via the network.

- For more information, visit “www.samsung.com” or contact the Samsung call centre. Mobile devices may need additional software installation. For details, refer to each device’s user’s guide.
- If your Samsung TV connects to a non-Samsung DLNA server, a compatibility issue may occur during video playback.

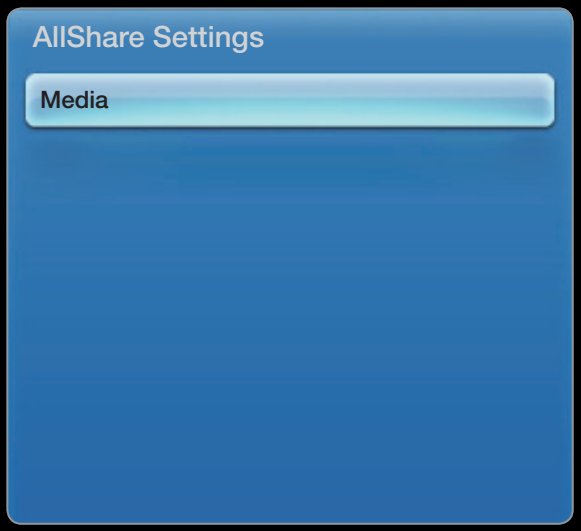
- By connecting your Samsung TV to a network via AllShare™, you can use Samsung's original functions as follows:
  - Playback of various video formats (DivX, XVID, MP4, 3GPP, AVI, ASF, MKV, etc.)
  - Video thumbnail feature
  - Bookmark function (to resume video playback)
  - Auto-chaptering (scene navigation)
  - Digital content management
  - Compatibility with various subtitle formats (SRT, SMI, SUB, TXT, TTXT)
  - Search with file names
  - And many others
- To use the original DLNA functions of Samsung fully, it is recommended that you use the AllShare™ software provided with your TV.

❑ Setting Up AllShare™

MENU → Network → AllShare Settings → ENTER

■ AllShare Settings

- **Media** (**On** / **Off**): Enables or disables the media function. When the media function is on, Media contents play can be controlled by a mobile phone or other devices that support DLNA DMC.



- The displayed image may differ depending on the model.

Media

Shows a list of mobile phones or connected devices which have been set up with this TV for using the **Media** function.

✎ The Media function is available in all devices which support DLNA DMC.

- **Allowed** / **Denied**: Allows/Blocks the the devices.
- **Delete**: Deletes the devices from the list.

  ✎ This function only deletes the name of the device from the list. If the deleted device is turned on or tries to connect to the TV, it may appear on the list again.

Using the Media Function

An alarm window appears informing the user that the media contents (videos, photos, music) sent from a mobile phone will be displayed on your TV. The contents are played automatically 3 seconds after the alarm window appears. If you press the **RETURN** or **EXIT** button when the alarm window appears, the media contents are not played.

NOTE

- If the media function executes for the first time, the warning popup window appears. Press the **ENTER** button to select **Allow**, then you can use **Media** function on that device.

- To turn off the media contents transmission from the mobile phone, set **Media** to **Off** in the **AllShare Settings**.
- Contents may not be played on your TV depending on their resolution and format.
- The **ENTER** and ◀ / ▶ buttons may not work depending on the type of media content.
- Using the mobile device, you can control the media playing. For details, refer to each mobile's user's guide.

How to play a media content saved on the connected device

1. Press the **MENU** button on your remote, use the ▲ or ▼ button to select **Network**, and then press the **ENTER** ↵ button.
2. Use the ▲ or ▼ button to select **AllShare Settings** in the **Network** menu, and then press the **ENTER** ↵ button.
3. Use the ▲ or ▼ button to select **Media**, and then press the **ENTER** ↵ button.
4. Set **Media** to **On**.
5. Specify the device containing the media content you want to play and select Allowed by using the ▲ or ▼ button.

6. Press the **EXIT** button to exit the menu, and then press the **SMART HUB** button.
7. Use the ◀ or ▶ button to select **AllShare™**, and then use the ▲ or ▼ button to select device. The Media Contents menu will open where you can play saved content on the selected device.
8. Select and play media content. For more detail information about Media Contents, refer to “Using the Media Contents”

❑ Anynet+

What is Anynet+? TOOLS

Anynet+ is a function that enables you to control all connected Samsung devices that support Anynet+ with your Samsung TV's remote. The Anynet+ system can be used only with Samsung devices that have the Anynet+ feature. To be sure your Samsung device has this feature, check if there is an Anynet+ logo on it.

NOTE

- You can only control Anynet+ devices using the TV remote control, not the buttons on the TV.
- The TV remote control may not work under certain conditions. If this occurs, reselect the Anynet+ device.
- The Anynet+ functions do not operate with other manufacturers' products.

For the method of connecting external devices , refer to the supported user manual.

NOTE

- Connect the Optical cable between the **DIGITAL AUDIO OUT (OPTICAL)** jack on your TV and the Digital Audio Input on the Home Theatre.
- The ARC function enables digital output of sound using the **HDMI IN 2(ARC)** port and can only be operated when the TV is connected to an audio receiver that supports the ARC function.
- When following the connection above, the Optical jack only outputs 2 channel audio. You will only hear sound from the Home Theatre's Front, Left and Right speakers and the subwoofer. If you want to hear 5.1 channel audio, connect the **DIGITAL AUDIO OUT (OPTICAL)** jack on the DVD / Satellite Box (i.e. Anynet Device 1 or 2) directly to the Amplifier or Home Theatre, not the TV.

- You can connect only one Home Theatre.
- You can connect an Anynet+ device using the HDMI cable. Some HDMI cables may not support Anynet+ functions.
- Anynet+ works when the AV device supporting Anynet+ is in the standby or on status.
- Anynet+ supports up to 12 AV devices in total. Note that you can connect up to 3 devices of the same type.

Anynet+ Menu

The Anynet+ menu changes depending on the type and status of the Anynet+ devices connected to the TV.

Anynet+ Menu	Description
View TV	Changes Anynet+ mode to TV broadcast mode.
Device List	Shows the Anynet+ device list.
(device_name) **MENU**	Shows the connected device menus. E.g. If a DVD recorder is connected, the disc menu of the DVD recorder will appear.
(device_name) **TOOLS**	Shows the tools menu of the connected device. E.g. If a DVD recorder is connected, the play menu of the DVD recorder will appear. Depending on the device, this menu may not be available.

Anynet+ Menu	Description
(device_name) **Title Menu**	Shows the title menu of the connected device. E.g. If a DVD recorder is connected, the title menu of the DVD recorder will appear. Depending on the device, this menu may not be available.
Receiver	Sound is played through the receiver.

❑ Setting Up Anynet+

MENU → System → Anynet+ (HDMI-CEC) → ENTER

■ Anynet+ (HDMI-CEC) (Off / On) TOOLS

To use the Anynet+ Function, Anynet+ (HDMI-CEC) must be set to On.

When the Anynet+ (HDMI-CEC) function is disabled, all the Anynet+ related operations are deactivated.

Auto Turn Off (No / Yes)

Setting an Anynet+ Device to turn off automatically when the TV is turned off.

- If **Auto Turn Off** is set to **Yes**, running external devices will turn off at the same time as the TV powers off.
- May not be enabled depending on the device.

❑ Switching between Anynet+ Devices

1. Press the **TOOLS** button to select Anynet+ (HDMI-CEC). And then press the **ENTER** ↵ button to select **Device List**.

   ✎ If you cannot find a device you want, select **Refresh** to refresh the list.

2. Select a device and press the **ENTER** ↵ button. You can switch to the selected device.

   ✎ The **Device List** menu will only appear when you set **Anynet+ (HDMI-CEC)** to **On** in the **System** menu.

◀ ▶

- Switching to the selected device may take up to 2 minutes. You cannot cancel the operation during the switching operation.
- If you have selected external input mode by pressing the **SOURCE** button, you cannot use the Anynet+ function. Make sure to switch to an Anynet+ device by using the **Device List**.

❑ Listening through a Receiver

You can listen to sound through a receiver (i.e Home Theatre) instead of the **TV Speaker**.

1. Select **Receiver** and set to **On**.
2. Press the **EXIT** button to exit.

NOTE If your receiver supports audio only, it may not appear in the device list.

NOTE The receiver will work when you have properly connected the optical in jack of the receiver to the **DIGITAL AUDIO OUT (OPTICAL)** jack of the TV.

When the receiver (i.e Home Theatre) is set to On, you can hear sound output from the TV's Optical jack. When the TV is displaying a DTV (Aerial) signal, the TV will send out 5.1 channel sound to the receiver. When the source is a digital component such as a DVD and is connected to the TV via HDMI, only 2 channel sound will be heard from the receiver.

Using the ARC function

You can listen to sound through a receiver connected HDMI cable without the need for a separate optical cable.

1. Select **Receiver** and set to **On**.
2. Press the **EXIT** button to exit.

    - To use the ARC function, a receiver which supports the HDMI-CEC and ARC features must be connected to the **HDMI IN 2 (ARC)** port.
    - To disable the ARC function, set the **Receiver** to **Off**. Even if the TV transmits the ARC signal continuously, the receiver will be blocked from receiving the signal.

❑ Using the Media Contents

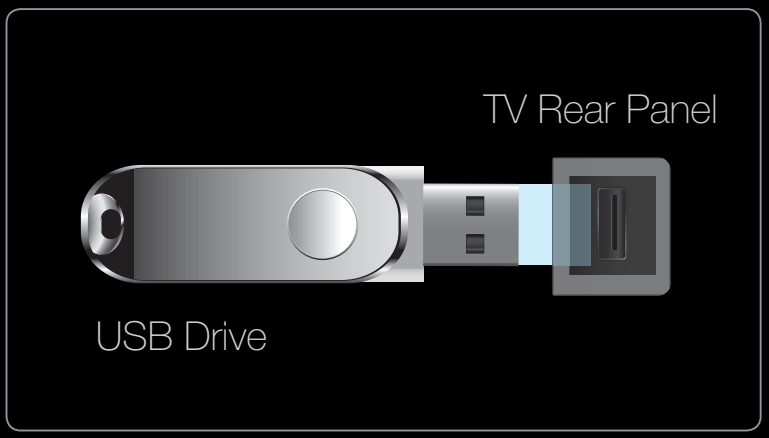
Enjoy photos, music and / or movie files saved on a USB Mass Storage Class (MSC) device.

1. Press the **SMART HUB** button.
2. Press the ▼ or ▲ button to select desired menu (**Videos**, **Photos**, **Music**), then press the **ENTER** ↵ button.

- The displayed image may differ depending on the model.

❑ Connecting a USB Device

1. Turn on your TV.
2. Connect a USB device containing recorded tv, photo, music and / or movie files to the **USB** port on the back or side panel of the TV.
3. When USB is connected to the TV, popup window appears. Then you can select **New device connected**.



- The displayed image may differ depending on the model.

❑ Connecting to the PC through network

You can play pictures, music and videos saved on your PC through a network connection in the **AllShare** mode.

1. For more information on how to configure your network, refer to “Setting the Network”.
    - You are recommended to locate both TV and PC in same subnet. The first 3 parts of the subnet address of the TV and the PC IP addresses should be the same and only the last part (the host address) should be changed. (e.g. IP Address: 123.456.789.**)

2. Using a LAN cable, connect between the external modem and the PC onto which the AllShare PC Software programme will be installed.
    - You can connect the TV to the PC directly without connecting it through a Sharer (Router).

✎ Functions that are not supported when connecting to a PC through a network:

- The **BGM Mode** and **Background Music Setting** functions.
- Sorting files by preference in the **Photos**, **Music** and **Videos** folders.
- The ◄◄ (REW) or ►► (FF) button while a movie is playing.

✎ Divx DRM, Multi-audio, embedded captions are not supported.

- AllShare PC Software should be permitted by the firewall programme on your PC.
- When you use **SMART HUB** mode through a network connection, depending on the functions of the provided server:
  - The sorting method may vary.
  - The **Scene Search** function may not be supported.
  - The **Resume**, which resumes playing of a video, may not be supported.
    - The **Resume** function does not support multiple users. (It will have only memorised the point where the most recent user stopped playing.)
  - The ◀ or ▶ button may not work depending on the content information.

✎ You may experience file stuttering while playing a video in **SMART HUB** through a network connection.

Before using Media Contents functions...

✎ It might not work properly with unlicenced multimedia files.

✎ Need-to-Know List before using Media Contents

- MTP (Media Transfer Protocol) is not supported.
- The file system supports FAT16, FAT32 and NTFS.
- Certain types of USB Digital camera and audio devices may not be compatible with this TV.

- Media Contents only supports USB Mass Storage Class (MSC) devices. MSC is a Mass Storage Class Bulk-Only Transport device. Examples of MSC are Thumb drives, Flash Card Readers and USB HDD (USB HUB are not supported). Devices should be connected directly to the TV's USB port.
- Before connecting your device to the TV, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.
- Connect a USB HDD to the dedicated **USB 1 (HDD)** port.
- Do not disconnect the USB device while it is loading.
- The higher the resolution of the image, the longer it takes to display on the screen.

- The maximum supported JPEG resolution is 15360X8640 pixels.
- For unsupported or corrupted files, the “Not Supported File Format” message is displayed.
- If the files are sorted by **Folder View**, up to 1000 files can be displayed in each folder.
- MP3 files with DRM that have been downloaded from a non-free site cannot be played. Digital Rights Management (DRM) is a technology that supports the creation, distribution and management of the content in an integrated and comprehensive way, including the protection of the rights and interests of the content providers, the prevention of the illegal copying of contents, as well as managing billings and settlements.

- If more than 2 PTP devices are connected, you can only use one at a time.
- If more than two MSC devices are connected, some of them may not be recognized. A USB device that requires high power (more than 500mA or 5V) may not be supported.
- If an over-power warning message is displayed while you are connecting or using a USB device, the device may not be recognized or may malfunction.

- If the TV has been no input during time set in **Auto Protection Time**, the Screensaver will run.
- The power-saving mode of some external hard disk drives may be released automatically when connected to the TV.
- If a USB extension cable is used, the USB device may not be recognized or the files on the device may not be read.
- If a USB device connected to the TV is not recognized, the list of files on the device is corrupted or a file in the list is not played, connect the USB device to the PC, format the device and check the connection.
- If a file deleted from the PC is still found when **SMART HUB** is run, use the “Empty the Recycle Bin” function on the PC to permanently delete the file.

Screen Display

Move to the file you desired using the up / down / right / left buttons and then press the **ENTER** or (Play) button. The file is played.

Device name: Displays a connected device name.

File List Section: You can confirm the files and groups that is sorted by each category.

Home: Return to content home

Change Contents/Device: Changes the content type or connected device.

Sorting: Displays sorting standard. Sorting standard is different depending on the contents.

Edit Mode: Select and play multiple files or assign them to My Playlist. This function is available only for Music.

Page bar: Moves to another page containing a list of files.

❑ Recorded TV

To use the recording or **Timeshift** function, the connected USB device must be available for recording. Device format is recommended to use USB HDD.

- During the Device formatting, do not disconnect the device while formatting is in progress. If you format the device, all files will be deleted.
- Before formatting your device to the tv, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.

■ Timer Recording (in Schedule Manager)

SMART HUB → Schedule Manager → ENTER↵

Allows you to make a reservation to record a programme scheduled for broadcast. Set the current time first to use this function.

Using the Timer Recording function (digital channels only)

1. Press the **ENTER**↵ button to select **Schedule Manager**. The **Schedule Manager** screen will be displayed.
2. Press the **ENTER**↵ button to add manual booking. A pop up screen will appear.

3. Press the ◀ or ▶ button to select the **Timer Recording**.

   ✎ We recommend using a **USB HDD** with at least 5,400 rpm, but a **USB HDD** of RAID type is not supported.

   ✎ A USB storage device cannot record until it completes the **Device Performance Test**.

4. Press the ◀ / ▶ / ▲ / ▼ buttons to set the **Antenna**, **Channel**, **Date** or **Start Time** / **End Time**.

To record a current broadcasting programme

Allows you to record a programme currently being broadcasted.

Set the current time first to use this function.

1. When you record a broadcast programme, press the ● (REC) button on the remote to record. A pop up window will appear.

   - We recommend using a USB HDD with at least 5,400 rpm, but a **USB HDD** of RAID type is not supported.
   - A USB storage device cannot record until it completes the **Device Performance Test**.

2. Select **Length** to set up the recording time, and then select **OK**.

Using the Timeshift function

If you missed a live broadcast, you can see from the recorded broadcast using this feature.

1. When you watch a broadcast programme, press the ▶ (Play) button on the remote to start the **Timeshift** function.
2. If you want to stop the **Timeshift** function, press the ■ (Stop) button on the remote.

- The **Timeshift** mode operates for a maximum of 90 minutes.
- After the **Timeshift** mode function has run for the maximum time, the time information will be fixed to “01:30:00”.
- The **Timeshift** function is not supported for analogue channels.
- The **Timeshift** functions are disabled for channels locked with **Channel Lock**.

Before using the Timeshift and a record function...

⚠ Recorded videos are DRM (digital rights management) protected and cannot be played on a PC or other TVs. Note that files saved on the TV cannot be used after the main board is changed.

NOTE

- We recommend using a USB HDD with at least 5,400 rpm, but a USB HDD of RAID type is not supported.
- The availability of both recording and the **Timeshift** function may differ depending on picture quality and the free space on the hard disk drive.
- USB memory stick is not compatible.
- When the **Timeshift** is used to the gunwales, the pause may be canceled.

- If the 5% free memory space limit of the USB storage device is reached, the current recording process will be closed.
- When recording is performed by both the PVR (Personal Video Recorder) function and a device that supports the HDMI-CEC feature, recording by the PVR function takes precedence.

- If the USB device has failed the **Device Performance Test**, the USB device must go through the **Device Format** and **Device Performance Test** again before you record with the **Guide** or **Channel**.
- The **Timeshift** functions can only be used with a USB storage device that completed the **Device Performance Test**.
- If you attempt the recording or **Timeshift** function with a device that did not have the **Device Performance Test**, the function will not start.

- If you press ⏺ (REC) on the remote control while the **Channel** screen is being displayed or record with **Timer Recording**, the TV may start or stop recording 1 or 2 seconds later than you intended due to the time needed to process the command.
- If any function that turns off the TV (**Sleep Timer**, **Off timer**, etc.) is set for a time that conflicts with recording, the TV will be turned off once the recording is complete.

Playing Recorded TV Programme

1. Press the ◀ / ▶ / ▲ / ▼ button to select the desired file in the file list.
2. Press the **ENTER** ↵ button or ▶ (Play) button.
    - The selected file is displayed on the top with its playing time.
    - During playing the recorded TV programme, you can search using the ◀ and ▶ button.
    - You can use ◀◀ (REW) and ▶▶ (FF) buttons during playback.

❑ Videos

Playing Video

1. Press the ◀ / ▶ / ▲ / ▼ button to select the desired file in the file list.
2. Press the **ENTER** ↵ button or ▶ (Play) button.

- The displayed image may differ depending on the model.

- The selected file is displayed on the top with its playing time.
- If video time information is unknown, play time and progress bar are not displayed.
- During playing the video, you can search using the ◀ and ▶ button.
- You can use ◀◀ (REW) and ▶▶ (FF) buttons during playback.

In this mode, you can enjoy movie clips contained on a Game, but you cannot play the Game itself.

- Supported Subtitle Formats

Name	File extension	Format
MPEG-4 time-based text	.txt	XML
SAMI	.smi	HTML
SubRip	.srt	string-based
SubViewer	.sub	string-based
Micro DVD	.sub or .txt	string-based

- Supported Video Formats

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
*.avi *.mkv	AVI MKV	Divx 3.11 / 4.x / 5.1 / 6.0	1920x1080	6 ~ 30	8	MP3 / AC3 / LPCM / ADPCM / DTS Core
		XviD	1920x1080	6 ~ 30	8	
		H.264 BP / MP / HP	1920x1080	6 ~ 30	25	
		MPEG4 SP / ASP	1920x1080	6 ~ 30	8	
		Motion JPEG	1920x1080	6 ~ 30	8	
*.asf	ASF	Divx 3.11 / 4.x / 5.1 / 6.0	1920x1080	6 ~ 30	8	MP3 / AC3 / LPCM / ADPCM / WMA
		XviD	1920x1080	6 ~ 30	8	
		H.264 BP / MP / HP	1920x1080	6 ~ 30	25	
		MPEG4 SP / ASP	1920x1080	6 ~ 30	8	
		Motion JPEG	1920x1080	6 ~ 30	8	
*.wmv	ASF	Window Media Video v9	1920x1080	6 ~ 30	25	WMA
*.mp4	MP4	H.264 BP / MP / HP	1920x1080	6 ~ 30	25	MP3 / ADPCM / AAC
		MPEG4 SP / ASP	1920x1080	6 ~ 30	8	
		XVID	1920x1080	6 ~ 30	8	

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
*.3gp	3GPP	H.264 BP / MP / HP	1920x1080	6 ~ 30	25	ADPCM / AAC / HE-AAC
		MPEG4 SP / ASP	1920x1080	6 ~ 30	8	
*.vro	VRO VOB	MPEG1	352x288	24 / 25 / 30	30	AC3 / MPEG / LPCM
		MPEG2	1920x1080	24 / 25 / 30	30	
*.mpg *.mpeg	PS	MPEG1	352x288	24 / 25 / 30	30	AC3 / MPEG / LPCM / AAC
		MPEG2	1920x1080	24 / 25 / 30	30	
		H.264	1920x1080	6 ~ 30	25	
*.ts *.tp *.trp	TS	MPEG2	1920x1080	24 / 25 / 30	30	AC3 / AAC / MP3 / DD+ / HE-AAC
		H.264	1920x1080	6 ~ 30	25	
		VC1	1920x1080	6 ~ 30	25	

Video Decoder	Audio Decoder
• Supports up to H.264, Level 4.1 • H.264 FMO / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported. • XVID, MPEG4 SP, ASP: – Below 1280x720: 60 frame max – Above 1280x720: 30 frame max • GMC 2 over is not supported.	• Supports up to WMA 7, 8, 9, STD • WMA 9 PRO does not support 2 channel excess multi channel or lossless audio. • WMA sampling rate 22050Hz mono is not supported.

Other Restrictions

NOTE

- Video content will not play, or not play correctly, if there is an error in the content or the container.
- Sound or video may not work if the contents have a standard bitrate / frame rate above the compatible Frame / sec listed in the table above.
- If the Index Table is in error, the Seek (Jump) function is not supported.
- You may experience file stuttering while playing a video through a network connection.
- Video content can not be played, if there are many contents in one file.
- Some USB / digital camera devices may not be compatible with the player.

Using the Play Continuously Function (Resume Play)

If you exit a movie when it is playing, you can play the movie later from the point where you stopped it.

- The **Resume** function does not support multiple users. (It will have only memorized the point where the most recent user stopped playing.)

1. Select the movie file you stopped and want to resume by pressing the ◀ or ▶ button.
2. Press the ▶ (Play) or **ENTER** ↵ button.
3. Press Resume Icon on control panel for resume. The Movie will begin to play from where you stopped it.

   - **Resume** is only available when you resume playing a movie you had stopped.

Section Repeat

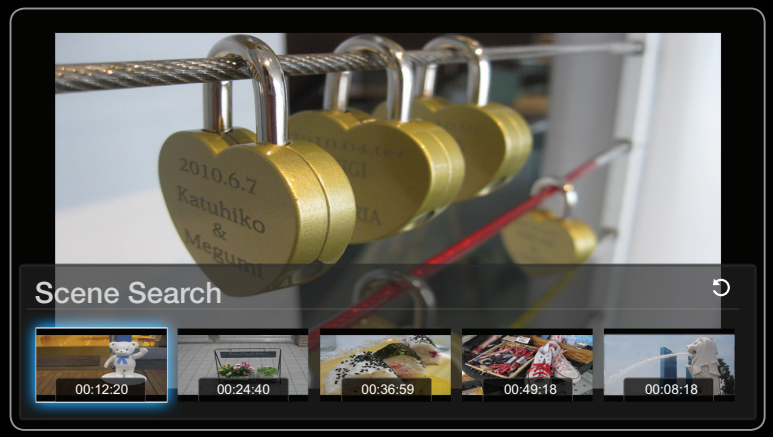
1. Select the recorded one you want to play continuously by pressing the ◀ or ▶ button to select it from the file list.
2. Press the ▶ (Play) / **ENTER** ↵ button.

   ✎ A triangle icon will appear on the progress bar when the playback starts.
3. Press the **TOOLS** button, and then select **Set Section Repeat**. You should select the starting and ending point that you want to play **Section Repeat**.

Using the Scene Search function

If you want to use the **Scene Search** function during playback, you can explore scene divided in to 5 chapters you want.

If the index information is damaged or unsupported, you will not be able to use the Scene Search function.



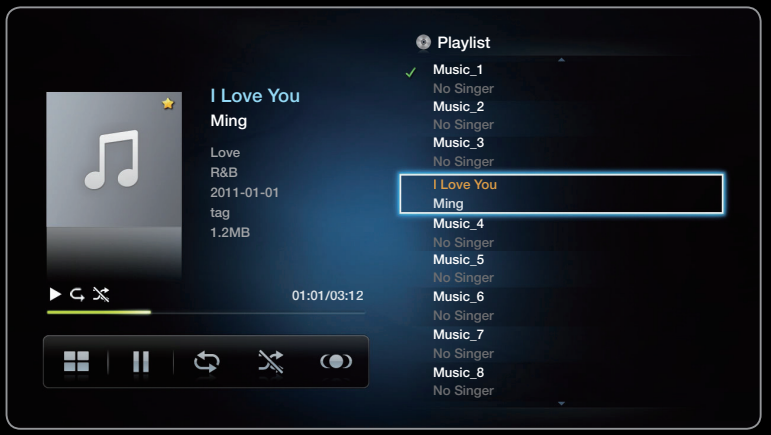
- The displayed image may differ depending on the model.

1. Select the movie file you want to play from the file list section.
2. press the ▶ (play) or **ENTER** ↵ button.
3. Press the **TOOLS** button, and then press the ◀ or ▶ button to select **Scene Search**. A pop up window appears.
4. Press the ◀ or ▶ button to select a scene you want search. The playback will start from the selected scene.

❑ Music

Playing Music

1. Press the ◀ / ▶ / ▲ / ▼ button to select the desired music file in the file list.
2. Press the **ENTER** ↵ button or ▶ (Play) button.
    - During playing the music, you can search using the ▶▶ (FF) and ◀◀ (REW) button.



- The displayed image may differ depending on the model.

- Only displays the files with MP3 extension. Other file extensions are not displayed, even if they are saved on the same USB device.
- If the sound is abnormal when playing MP3 files, adjust the **Equalizer** in the **Sound** menu. (An over-modulated MP3 file may cause a sound problem.)

Creating My Playlist

SMART HUB → Music → My playlist → Edit Mode → ENTER

1. On the **Music** screen in the **SMART HUB** menu, press the ◀ / ▶ / ▲ / ▼ button to select **Edit Mode**, and then press the **ENTER** button.
2. Press the ◀ / ▶ / ▲ / ▼ button to select the tracks you want to add and press the **ENTER** button.
   - The check box appears to the left of the selected files.
   - To select all the files in the current page, select **Select All** in this page at the top.
3. Press the ◀ / ▶ / ▲ / ▼ button to select **Add to My Playlist**,
   - Note that selecting **Clear My Playlist** will return **My Playlist** to the default playlist.

4. Press the **ENTER** button. The message **Selected items added to My Playlist** is displayed.
5. The newly created or updated playlist will be in the main **Music** page.

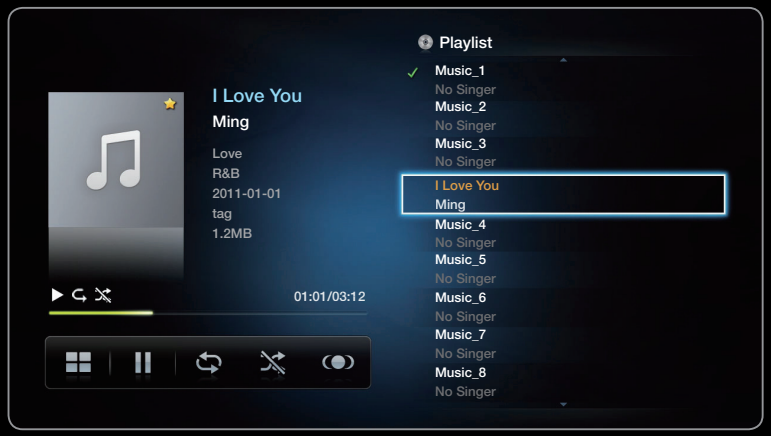
Playing My Playlist

Select the **My Playlist** folder and it will play automatically. Press the ▲ or ▼ button to select a different music file within the play list.

To delete a file from **My Playlist**, select the recycle bin icon next to the file you want to delete by using the direction buttons.

Playing the selected music files

1. On the **Music** screen in the **SMART HUB** menu, press the ◀ / ▶ / ▲ / ▼ button to select **Edit Mode**, and then press the **ENTER** ↵ button.
2. Press the ◀ / ▶ / ▲ / ▼ button to select the desired music file in the file list, and then **ENTER** ↵ button.



- The displayed image may differ depending on the model.

NOTE

- The check box mark appears to the left of the selected files.
- To select all the files in the current page, select **Select All** in this page at the top.
- To cancel a selection, press the **ENTER** button again.

3. Press the ◀ / ▶ / ▲ / ▼ button to select **Play**. The selected music files will be play.

❑ Photos

Viewing a Photo (or Slide Show)

1. Press the ◀ / ▶ / ▲ / ▼ button to select the desired file in the file list.
2. Press the **ENTER** ↵ button.
   - When you press the ▶ (Play) button in the file list, slide show will be started immediately.

- All files in the file list section will be displayed in the slide show.
- During the slide show, files are displayed in order from currently being shown.

✎ Music files can be automatically played during the slide show if the **Background Music** is set to **On**.

✎ The **BGM Mode** cannot be changed until the BGM has finished loading.

❑ Media Contents - Additional Function

Sorting the file list

To sort files in the file list, select the Sorting by using the ◀ / ▶ / ▲ / ▼ button. And then press the **ENTER** button.

Category	Operations	Recorded TV	Videos	Music	Photos
Default	Default is sorted by Title without Group.	✓			
Folder View	Displays the whole folder. You can view the file name and thumbnail by selecting the folder.		✓	✓	✓
Title	Sorts and displays the file title in Symbol / Number / Alphabet / Special order.	✓	✓	✓	✓
Latest Date	Sorts and shows files by the latest date.	✓	✓		✓

Category	Operations	Recorded TV	Videos	Music	Photos
Earliest Date	Sorts and shows files by the earliest date.	⌄	⌄		⌄
Artist	Sorts the music file by artist in alphabetical order.			⌄	
Album	Sorts the music file by album in alphabetical order.			⌄	
Genre	Sorts music files by the genre.				
Monthly	Sorts and shows photo files by month.	⌄			⌄
Weekly	Sorts and shows photo files by week.	⌄			
Channel	Sorts the recorded files by channel name.	⌄			

Videos / Music / Photos Play Option menu

The following functions are enabled during playback.

Category	Operations	Recorded TV	Videos	Music	Photos
List	Return to the file list.	✓	✓	✓	✓
Play continuosly	A movie file will begin to play from where it was stopped.	✓	✓		
Play / **Pause**	You can start or pause a video or music file. Alternatively, the ▶ (Play) or ⏸ (Pause) button on the remote can be used.		✓	✓	
Set Section Repeat	You can set up the function to repeat some section. You can also watch some section you want to.	✓			

Category	Operations	Recorded TV	Videos	Music	Photos
Edit Favourites	Set files you watch frequently as favorites.	⌄			
Scene Search	You can use the **Scene Search** function during playback to view or start a movie from the scene of your choice.	⌄	⌄		
Title Search	You can move directly to another Title.	⌄	⌄		
Time Search	You can search the movie using ◀ and ▶ buttons at intervals of 1 minutes.	⌄	⌄		
Repeat Mode	You can play movie and music files repeatedly.	⌄	⌄	⌄	
Shuffle Mode	You can play the music sequentially or randomly.			⌄	

Category	Operations	Recorded TV	Videos	Music	Photos
Picture Size	You can adjust the picture size to your preference.		⌄		
Sound Mode	You can change the **Sound Mode**.	⌄	⌄	⌄	⌄
Picture Mode	You can change the **Picture Mode**.	⌄	⌄		⌄
Subtitle	You can view a subtitle. You can select a specific language if the subtitle file contains multiple languages.	⌄	⌄		

Category	Operations	Recorded TV	Videos	Music	Photos
Previous / **Next**	Go to previous / next photo file.				⌄
Subtitle Setting	Displays the **Subtitle Setting**. You can set up a subtitle option.	⌄	⌄		
Start Slide Show / **Stop Slide Show**	You can start or stop a slide show. Alternatively, the ► or II button on the remote can be used.				⌄
Slide Show Speed	You can select the slide show speed during the slide show. Alternatively, the ◄◄ or ►► button on the remote can be used.				⌄
Slide Show Effect	You can set various slide show effects.				⌄

Category	Operations	Recorded TV	Videos	Music	Photos
Background Music On / Off	You can start or stop a background music.				⌄
Background Music Setting	You can set and select background music when watching a photo file or slide show.				⌄
Zoom	You can zoom into images in full screen mode.				⌄
Rotate	You can rotate images.				⌄

◀ ▶

- Pressing the **INFO** button while a device name is selected will display information about the selected device name.
- Pressing the **INFO** button while a file is selected will display information about the selected file.

Data Service

Allows the user to use information (text, still images, graphics, documents, software, etc.) transmitted via broadcast media.

Auto Run Data Service (On / Off) for Italy

Sets whether or not to automatically run data service. **Auto Run Data Service** automatically runs data service without user intervention.

If any other secondary function is under way, **Auto Run Data Service** may not work.

Using Data Service

If the channel you are currently watching provides data service, you can enjoy a variety of data services by pressing the D for Italy or red button.

- Provided Data Service information may vary depending on broadcast.
- While using data service, changing the channel using the numeric buttons may not be possible depending on the service.

1. Press the D for Italy or red button. Select a desired service by pressing the ▲ / ▼ / ◀ / ▶ and **OK** buttons.

   - If **Auto Run Data Service** is **On**, the data service will automatically run with loading banner. In this case, the D for Italy or red button does not work.

2. Press the red button. The data service screen will be displayed.
3. Move to a desired option by pressing the ▲ / ▼ / ◀ / ▶ button on the data service screen and then press **OK**. The selected service will be started.

   If a Colour button of a certain function appears on the screen, you can use the offered function by pressing the corresponded button.

4. If you press **EXIT** button, data service will be closed.

Main Data Service buttons and their functions

Button	Operation
D for Italy or red button. (Data Service)	Displays the **Data Service** list and immediately starts **Data Service**.
BACK↩	Returns to the previous screen.
Colour Button	Perform functions corresponding to each Colour button image displayed on the screen during **Data Service**. Operations may differ depending on the service provider.
Symbol	Text can be inputted using the numbers and letters printed on and above the numeric keys on the remote control. If you input the numeric keys on the remote control one by one into the blank where the cursor is located on the text input screen, the corresponding lettering, numbers or special characters will be displayed. e.g., If you press the number 3 key in rapid succession, then the assigned letters (D, E, and F) and the number 3 will alternately appear in order of input.

Button	Operation
TEXT	Switches to teletext mode or Returns to the previous screen. Operations may differ depending on the service provider.
▲ / ▼ / ◀ / ▶	Moves the **Data Service** menu up, down, left and right.
OK	Runs a selected item.
EXIT	Stops a running **Data Service**.

HbbTV for France / Germany

You will be able to access services from entertainment providers, online providers and CE manufactures through the HbbTV.

- This service may be supported in other countries.
- Some broadcating may not support the HbbTV.

1. HbbTV is turned off by default. To use HbbTV, go to **System** → **Data Service** and set it **On**.
2. HbbTV is not available when Timeshift is running or when a recorded video is being played back.
3. An application on HbbTV may malfunction temporarily depending on the circumstances of the broadcast station or application provider.
4. An application is only available for use on HbbTV when the TV network is connected to an external network. The application may malfunction depending on the network conditions.

5. If the current channel is compatible with both the HbbTV and non-HbbTV text-input modes, activate TTX by pressing the TTX key twice.

- When the screen indicates (with the red button, etc.) that HbbTV is being accessed
- Press the TTX button once to enter the HbbTV text-input mode.
- Press the TTX button twice to enter the non-HbbTV text-input mode.

❑ Troubleshooting

■ Troubleshooting for SMART HUB

Problem	Possible Solution
Some application contents only appear in English. How can I change the language?	The Application content language may be different from the application user interface language. The ability to change the language depends on the service provider.
Some application services do not work.	Check with the service provider. Refer to the help website for application service provider information.
When a network error occurs, I can only use the setting menu.	If network connection doesn't work, your service might be limited, as all functions except the setting menu are needed to connect to the internet.

Web Browser

1. To open **Web Browser**, press the ◀ / ▶ / ▲ / ▼ buttons to select **Web Browser**, and then press the **ENTER** ↵ button. The **Web Browser** may be displayed differently with PC.
2. The **Web Browser** is not compatible with a Java application.
3. When attempted to download a file, but the file could not be saved and an error message appeared.
4. Access may be blocked to some websites or to web browsers operated by certain businesses.
5. Playback of Flash video may be restricted.
6. E-commerce, for purchasing products online, is not supported.

7. Scrolling a web page that allows only part (and not the whole) of the page to be scrolled may cause corrupted characters.
8. ActiveX is not supported.
9. Some options cannot be accessed in Tab mode. (To access such options, switch to Pointer mode.)
10. Some text may appear corrupted because the number of supported fonts is limited.
11. The response to a command on the remote or the screen display may be delayed temporarily if a web page is currently loading.
12. The loading of a web page may delay or stop with some operating systems.

13. Copy and Paste are not supported.
14. When writing emails or posting messages, some functions (Such as changing the size or colors.) may not be supported.
15. The number of bookmarks and logs that can be saved is limited.
16. The maximum number of windows that can open at the same time may vary depending on the browsing condition or TV model.
17. The web browsing speed depends on the network conditions.
18. PIP will automatically be deactivated if a video is played in the browser. Videos may not commence playback after PIP interruption and a possible refresh for the page may be required.

19. The Web Browser can play MP3 audio files only.
20. The function for importing or exporting bookmarks is compatible with bookmark files in a particular file format only. (Compatible format: Netscape-bookmark-file-1)
21. When you import or export the bookmark, the folder tree is not included.
22. If you import the bookmark file to a Computer from a TV, the bookmark file will be saved in “Samsung SmartTV Bookmark” folder.
23. If the time is not set in the menu (System → Time → Clock), the history information may not be saved.

24. Visited web site history is saved in chronological order and It will be removed from the list according to oldest page accessed.

25. Some video or audio content may not play during Flash playback depending on the video / audio codec supported.

26. A sudden change in the picture brightness inside the video window may affect the brightness of the surrounding stationary picture. for PDP TV

Troubleshooting for Anynet+

Problem	Possible Solution
Anynet+ does not work.	• Check if the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only. • Only one receiver (home theatre) can be connected. • Check if the Anynet+ device power cord is properly connected. • Check the Anynet+ device's Video / Audio / HDMI cable connections. • Check whether **Anynet+ (HDMI-CEC)** is set to **On** in the Anynet+ setup menu. • Check whether the TV remote control is in TV mode. • Check whether the remote control is Anynet+ compatible. • Anynet+ doesn't work in certain situations. (Searching channels, operating My Contents or **Plug & Play** (initial setup), etc.) • When connecting or removing the HDMI cable, please make sure to search devices again or turn your TV off and on again. • Check if the Anynet+ Function of Anynet+ device is set on.

Problem	Possible Solution
I want to start Anynet+.	• Check if the Anynet+ device is properly connected to the TV and check if the **Anynet+ (HDMI-CEC)** is set to **On** in the Anynet+ Setup menu. • Press the **TOOLS** button to display the Anynet+ menu and select a menu you want.
I want to exit Anynet+.	• Select **View TV** in the Anynet+ menu. • Press the **SOURCE** button on the TV remote control and select a non- Anynet+ device.
The message “Connecting to Anynet+ device...” appears on the screen.	• You cannot use the remote control when you are configuring Anynet+ or switching to a view mode. • Use the remote control when the Anynet+ setting or switching to view mode is complete.
The Anynet+ device does not play.	• You cannot use the play function when **Plug & Play** (initial setup) is in progress.

Problem	Possible Solution
The connected device is not displayed.	• Check whether or not the device supports Anynet+ functions. • Check whether or not the HDMI cable is properly connected. • Check whether **Anynet+ (HDMI-CEC)** is set to **On** in the Anynet+ setup menu. • Search Anynet+ devices again. • You can connect an Anynet+ device using the HDMI cable only. Some HDMI cables may not support Anynet+ functions. • If connection is terminated because there has been a power interruption or the HDMI cable has been disconnected, please repeat the device scan.
The TV sound is not output through the receiver.	• Connect the optical cable between TV and the receiver. • The ARC function enables digital output of sound using the **HDMI IN 2 (ARC)** port and can only be operated when the TV is connected to an audio receiver that supports the ARC function.

If you have any questions about the TV, first refer to this list. If none of these troubleshooting tips apply, please visit “www. samsung.com” then click on Support, or contact the call centre listed on the back-cover of this manual.

Issues	Solutions and Explanations
Picture Quality	First of all, please perform the Picture Test and confirm that your TV is properly displaying test image. (go to **MENU** - **Support** - **Self Diagnosis** - **Picture Test**) If the test image is properly displayed, the poor picture may caused by the source or signal.

Issues	Solutions and Explanations
The TV image does not look as good as it did in the store.	• If you have an analogue cable / set top box, upgrade to a digital set top box. Use HDMI or Component cables to deliver HD (high definition) picture quality. • Cable / Satellite subscribers: Try HD stations from the channel line up. • Antenna connection: Try HD stations after performing Auto programme. Many HD channels are up scaled from SD(Standard Definition) contents. • Adjust the Cable/Set top box video output resolution to 1080i or 720p. • Make sure you are watching the TV at the minimum recommended distance based on the size and definition of the signal.

Issues	Solutions and Explanations
The picture is distorted: macro block error, small block, dots, pixelization	• Compression of video contents may cause picture distortion especially in fast moving pictures such as sports and action movies. • Low signal level or bad quality can cause picture distortion. This is not a TV issue. • Mobile phones used close to the TV (cca up to 1m) may cause noise in picture on analogue and digital TV.
Colour is wrong or missing.	• If you’re using a component connection, make sure the component cables are connected to the correct jacks. Incorrect or loose connections may cause colour problems or a blank screen.

Issues	Solutions and Explanations
There is poor colour or brightness.	• Adjust the **Picture** options in the TV menu (go to **Picture** mode / **Colour** / **Brightness** / **Sharpness**) • Adjust **Energy Saving** option in the TV menu (go to **MENU** – **System** – **Eco Solution** – **Energy Saving**) • Try resetting the picture to view the default picture settings (go to **MENU** - **Picture** - **Reset Picture**)
There is a dotted line on the edge of the screen.	• If the picture size is set to **Screen Fit**, change it to **16:9**. • Change cable / satellite box resolution.
The picture is black and white.	• If you are using an AV composite input, connect the video cable (yellow) to the Green jack of component input 1 on the TV.

Issues	Solutions and Explanations
When changing channels, the picture freezes or is distorted or delayed.	• If connected with a cable / set-top box, please try to it. Reconnect the AC cord and wait until the cable / set-top box reboots. • Set the output resolution of the cable box to 1080i or 720p.
Sound Quality	First of all, please perform the **Sound Test** to confirm that your TV audio is properly operating. (go to **MENU** - **Support** - **Self Diagnosis** - **Sound Test**) If the audio is **OK**, the sound problem may caused by the source or signal.
There is no sound or the sound is too low at maximum volume.	• Please check the volume the of external device connected to your TV.

Issues	Solutions and Explanations
The picture is good but there is no sound.	• Set the Speaker Select option to **TV Speaker** in the sound menu. • If you are using an external device, make sure the audio cables are connected to the correct audio input jacks on the TV. • If you are using an external device, check the device's audio output option (ex. you may need to change your cable box's audio option to HDMI when you have a HDMI connected to your TV). • If you are using a DVI to HDMI cable, a separate audio cable is required. • If your TV has a headphone jack, make sure there is nothing plugged into it.

Issues	Solutions and Explanations
The speakers are making an inappropriate noise.	• Check the cable connections. Make sure a video cable is not connected to an audio input. • For antenna or cable connections, check the signal strength. Low signal level may cause sound distortion.
No Picture, No Video	
The TV won't turn on.	• Make sure the AC power cord is securely plugged in to the wall outlet and the TV. • Make sure the wall outlet is working. • Try pressing the **POWER** button on the TV to make sure the problem is not the remote. If the TV turns on, refer to "The remote control does not work" below.

Issues	Solutions and Explanations
The TV turns off automatically.	• Ensure the **Sleep Timer** is set to **Off** in the Setup menu. • If your PC is connected to the TV, check your PC power settings. • Make sure the AC power cord is plugged in securely to the wall outlet and the TV. • When watching TV from an antenna or cable connection, the TV will turn off after 10~15 minutes if there is no signal.
There is no picture/Video.	• Check cable connections (remove and reconnect all cables connected to the TV and external devices). • Set your external devices' (Cable / Set top Box, DVD, Blu-ray etc) video outputs to match the connections to the TV input. For example, if an external device's output is HDMI, it should be connected to an HDMI input on the TV. • Make sure your connected devices are powered on. • Be sure to select the TV's correct source by pressing the **SOURCE** button on the TV remote.

Issues	Solutions and Explanations
RF (Cable / Antenna) Connection	
The TV is not receiving all channels.	• Make sure the Antenna cable is connected securely. • Please try Plug & Play (Initial setup) to add available channels to the channel list. Go to **MENU** - **System** - **Plug & Play** (Initial setup) and wait for all available channels to be stored. • Verify the Antenna is positioned correctly.
The picture is distorted: macro block error, small block, dots, pixelization.	• Compression of video contents may cause picture distortion, especially with fast moving pictures such as sports and action movies. • A low signal can cause picture distortion. This is not a TV issue.
PC Connection	
A “Mode Not Supported” message appears.	• Set your PC’s output resolution so it matches the resolutions supported by the TV.

Issues	Solutions and Explanations
“PC” is always shown on the source list, even if a PC is not connected.	• This is normal; “PC” is always shown on the source list, regardless of whether a PC is connected.
The video is OK but there is no audio.	• If you are using an HDMI connection, check the audio output setting on your PC.
Network Connection	
The wireless network connection failed.	• Make sure the Network Connection is set to **Wireless**. • Make sure the TV is connected to a wireless IP sharer (router).

Issues	Solutions and Explanations
Recording / Timeshift	
The USB device is not recognized or a **Device Format**, **Checking Device** or **Device Performance Test** fails.	• See the manual for the USB device to check that the USB device supports recording. • If the USB device has a lock, ensure it is off. • Check that the USB device can be formatted when connected to the PC. Connect the USB to the TV and format it. (Formatting may fail intermittently.) • If a **Device Performance Test** or formatting failed, it means that there is a problem with the USB hardware or the performance of the USB hardware is too low.
A message prompts me to format a USB device that has been working well.	• If the USB device has a lock, ensure it is off. • Recover the USB device using the recovery function in **Checking Device**.

Issues	Solutions and Explanations
The recording function does not work.	• Check that a USB device is connected. • Check that the channel is a recordable digital channel. • If the signal is weak or does not exist, the recording function will automatically be closed. • The TV will not record if the USB device has no free memory space. Check that this is not the case.
Timeshift Mode does not work.	• Check that a USB device is connected. • Radio channels and analogue broadcasts are not supported. • Data broadcast channels are not supported. • If the signal is weak or does not exist, the **Timeshift Mode** function will automatically be closed. • **Timeshift Mode** cannot be performed if the USB device has no free memory space. Check that this is not the case. • USB memory stick is not supported. Please use the USB HDD type.

Issues	Solutions and Explanations
A message indicates a performance test failure, and the recording and **Timeshift Mode** functions do not work.	• These problems may occur if you use a low-performance USB device that does not support recording. We recommend using a USB HDD with at least 5 400 rpm, but a USB HDD of RAID type is not supported.
A scheduled recording has failed.	• A scheduled recording is disabled for certain operations (formatting, performance test, error checking, deleting) that access the file system of a USB device. • If there is no USB device connected, the TV will not record even if the scheduled time is reached. • The TV will not record if the USB device has no free memory space. Check that this is not the case. • If you record a channel locked with **Program Rating Lock**, the PIN input window will appear when you try to play back the recording.

Issues	Solutions and Explanations
Several recording devices are connected but the TV stopped recording.	• If multiple recording devices are connected and the device set as Default Recording Device has no free memory space, the recording function will be closed. Attempt recording again. The device with the most free memory space will automatically be set as Default Recording Device and the TV will start recording.
Others	
The picture won’t display in full screen.	• HD channels will have black bars on either side of the screen when displaying up scaled SD (4:3) contents. • Black bars on the top and bottom will appear during movies that have aspect ratios different from your TV. • Adjust the picture size options on your external device or TV to full screen.

Issues	Solutions and Explanations
The remote control does not work.	• Replace the remote control batteries with the poles (+ / –) in the right direction. • Clean the sensor's transmission window on the remote. • Try pointing the remote directly at the TV from 5~6 feet away.
The cable/set top box remote control doesn't turn the TV on or off, or adjust the volume.	• Programme the Cable/Set top box remote control to operate the TV. Refer to the Cable/Set user manual for the SAMSUNG TV code.
A "Mode Not Supported" message appears.	• Check the supported resolution of the TV, and adjust the external device's output resolution accordingly.
There is a plastic smell from the TV.	• This smell is normal and will dissipate over time.

Issues	Solutions and Explanations
The TV **Signal Information** is unavailable in the Self Diagnosis menu.	• This function is only available with digital channels from an Antenna / RF/Coax connection.
The TV is tilted to the side.	• Remove the base stand from the TV and reassemble it.
There are difficulties assembling the stand base.	• Make sure the TV is placed on a flat surface. It is necessary to use magnetized screw driver if you cannot remove the screws from the TV
The channel menu is greyed out. (unavailable)	• The **Channel** menu is only available when the TV source is selected.

Issues	Solutions and Explanations
Your settings are lost after 30 minutes or every time the TV is turned off.	• If the TV is in the **Store Demo** mode, it will reset audio and picture settings every 30 minutes. Change the settings from **Store Demo** mode to **Home Use** mode in the Plug & Play (Initial setup) procedure. Press the **SOURCE** button to select TV mode, and go to **MENU** → **System** → **Plug & Play** (Initial setup) → **ENTER**↵.
You have intermittent loss of audio or video.	• Check the cable connections and reconnect them. • Loss of audio or video can be caused by using overly rigid or thick cables. Make sure the cables are flexible enough for long term use. If mounting the TV to the wall, we recommend using cables with 90 degree connectors.

Issues	Solutions and Explanations
You see small particles when you look closely at the edge of the frame of the TV.	• This is part of the product's design and is not a defect.
The **PIP** menu is not available.	• **PIP** functionality is only available when you are using a HDMI, PC or components source.
The message "Scramble signal" or "Weak Signal/No Signal" appears.	• If you are using a CAM CARD (CI / CI+), check that it is installed into the common interface slot. • If there is still a problem, pull the CAM CARD out of the TV and insert it into the slot again.
You turned the TV off 45 minutes ago, and it turned on again.	• It is normal. The TV operates the OTA (Over The Aerial) function itself to upgrade firmware downloaded whilst your watching TV.

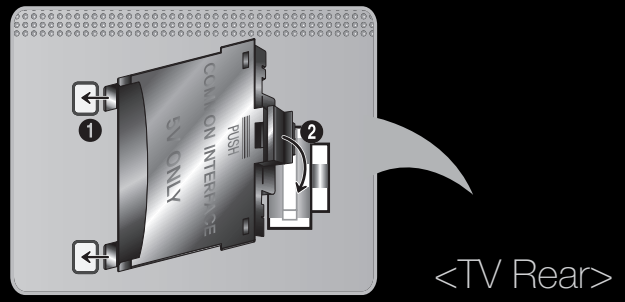
Issues	Solutions and Explanations
There are recurrent picture/ sound issues.	• Check and change the signal/source.
A reaction may occur between the rubber cushion pads on the base stand and the top finish of some furniture.	• To prevent this, use felt pads on any surface of the TV that comes in direct contact with furniture.

✎ You can keep your TV as optimum condition to upgrade the latest firmware on web site (samsung.com → Support → Downloads) by USB.

❑ Connecting to a COMMON INTERFACE slot

■ Attaching the CI Card Adaptor

Attach the adapter as shown below. To connect the CI CARD Adapter, follow these steps.



<TV Rear>

✎ We recommend attaching the adapter before installing

1. Insert the CI CARD Adapter into the two holes on the product ❶.

✎ Please find a two holes on the rear of the TV. A two holes is beside the **COMMON INTERFACE** port.

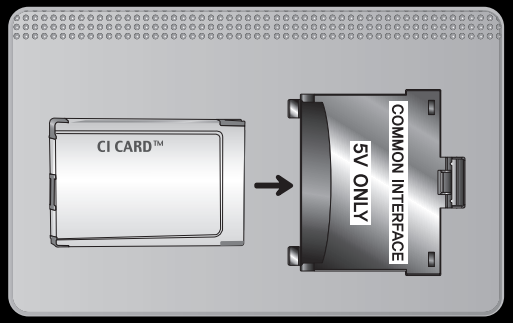
2. Connect the CI CARD Adapter into the **COMMON INTERFACE** port on the product ❷.

3. Insert the “CI or CI+ CARD”

We recommand that you insert the CI card before you mount the TV on a wall. It may be difficult to insert after the mounting. Insert the card after attaching the CI-Module on TV. It is difficult to attach the module if you insert the card before attaching.

Using the “CI or CI+ CARD”

To watch paid channels, the “CI or CI+ CARD” must be inserted.



- If you don’t insert the “CI or CI+ CARD”, some channels will display the message “Scrambled Signal”.
- The pairing information containing a telephone number, the “CI or CI+ CARD” ID the Host ID and other information will be displayed in about 2~3 minutes. If an error message is displayed, please contact your service provider.
- When the configuration of channel information has finished, the message “Updating Completed” is displayed, indicating the channel list is updated.

NOTE

- You must obtain a “CI or CI+ CARD” from a local cable service provider.
- When removing the “CI or CI+ CARD”, carefully pull it out with your hands since dropping the “CI or CI+ CARD” may cause damage to it.
- Insert the “CI or CI+ CARD” in the direction marked on the card.
- The location of the **COMMON INTERFACE** slot may be different depending on the model.

- “CI or CI+ CARD” is not supported in some countries and regions; check with your authorized dealer.
- If you have any problems, please contact a service provider.
- Insert the “CI or CI+ CARD” that supports the current antenna settings. The screen will be distorted or will not be seen.

❑ Teletext Feature

(depending on the country)

The index page of the Teletext service gives you information on how to use the service. For Teletext information to be displayed correctly, channel reception must be stable. Otherwise, information may be missing or some pages may not be displayed.

✎ You can change Teletext pages by pressing the numeric buttons on the remote control.

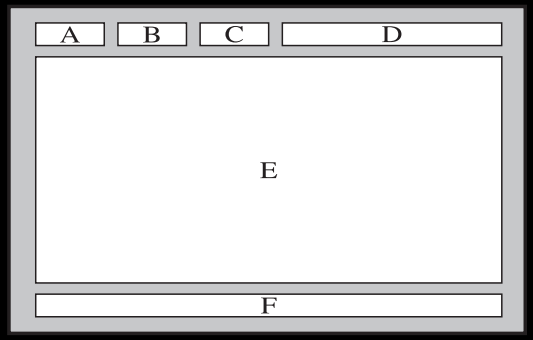
◀ ▶

(Teletext on / mix / off)	Activates the Teletext mode for the current channel. Press the button twice to overlap the Teletext mode with the current broadcasting screen. Press it one more time to exit teletext.
(store)	Stores the Teletext pages.
(size)	Displays the teletext on the upper half of the screen in double-size. To move the text to the lower half of the screen, press it again. For normal display, press it once again.
(hold)	Holds the display at the current page, in the case that there are several secondary pages that follow automatically. To undo, press it again.

Colour buttons (red, green, yellow, blue)	If the FASTEXT system is used by the broadcasting company, the different topics on a Teletext page are colour-coded and can be selected by pressing the coloured buttons. Press the colour corresponding to the topic of your choice. A new colour coded page is displayed. Items can be selected in the same way. To display the previous or next page, press the corresponding coloured button.
(mode)	Selects the Teletext mode (LIST / FLOF).If pressed during LIST mode, switches the mode to List save mode. In List save mode, you can save a Teletext page into a list using the (store) button.
(sub-page)(size)	Displays the available sub-page.

(page up)	Displays the next Teletext page.
(page down)	Displays the previous Teletext page.
(index)	Displays the index (contents) page at any time while you are viewing Teletext.
(reveal)	Displays the hidden text (answers to quiz games, for example). To display the normal screen, press it again.
(cancel)	Shrinks the Teletext display to overlap with the current broadcast.

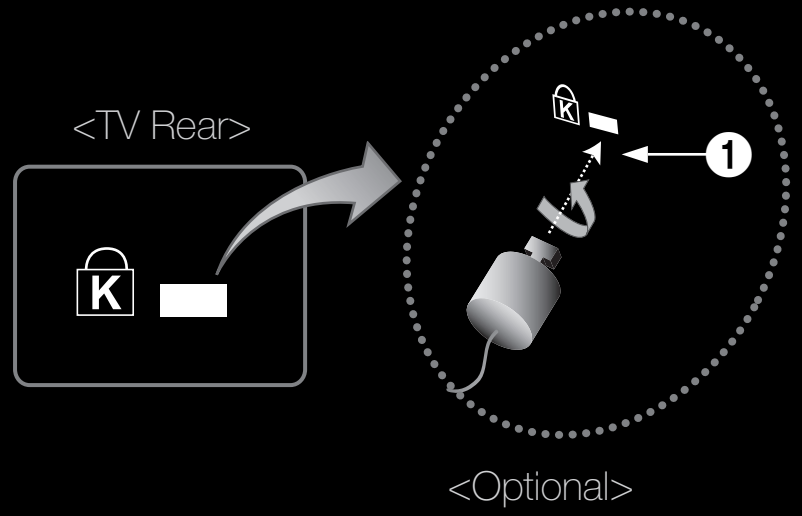
Typical Teletext page



Part	Contents
A	Selected page number.
B	Broadcasting channel identity.
C	Current page number or search indications.
D	Date and time.
E	Text.
F	Status information. FASTEXT information.

❑ Anti-theft Kensington Lock

The Kensington Lock is not supplied by Samsung. It is a device used to physically fix the system when using it in a public place. The appearance and locking method may differ from the illustration depending on the manufacturer. Refer to the manual provided with the Kensington Lock for additional information on proper use.



◀ ▶

Please find a “🔒” icon on the rear of the TV. A Kensington slot is beside the “🔒” icon.

To lock the product, follow these steps:

1. Wrap the Kensington Lock cable around a large, stationary object such as desk or chair.
2. Slide the end of the cable with the lock attached through the looped end of the Kensington Lock cable.
3. Insert the locking device into the Kensington slot on the product ❶.
4. Lock the lock.

◀ ▶

- These are general instructions. For exact instructions, see the User manual supplied with the locking device.
- The locking device has to be purchased separately.
- The location of the Kensington slot may be different depending on the TV model.

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Covered by one or more of the following U.S. patents : 7,295,673; 7,460,668; 7,515,710; 7,519,274

Open Source Licence Notice

In the case of using open source software, Open Source Licences are available on the product menu.

Open Source Licence Notice is written only English.

❑ How to view the e-Manual

You can read the introduction and instructions about the TV features stored in your TV.

MENU → Support → e-Manual → ENTER

Screen Display

Current on-air broadcasting.

Change the category. Press ◀ or ▶ button to select category you want.

Displays the sub-menu list. Press **ENTER** ↵ button to select sub-menu you want.

Help: Displays the **e-Manual Guide** or **Product Guide**. Press **ENTER** ↵ button.

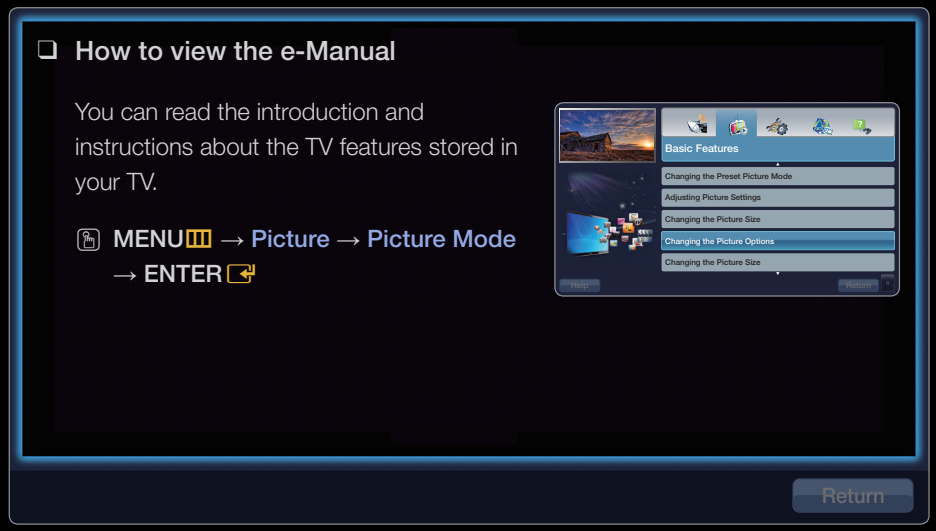
Operation Buttons:

Index: Displays index screen.

X: Exit the e-Manual.

Using the Help

Display the e-Manual Guide & the Product Guide by pressing **Help**.


How to view the e-Manual
You can read the introduction and instructions about the TV features stored in your TV.
MENU → Picture → Picture Mode → ENTER
Basic Features
Changing the Preset Picture Mode
Adjusting Picture Settings
Changing the Picture Size
Changing the Picture Options
Changing the Picture Size
Return

<e-Manual>

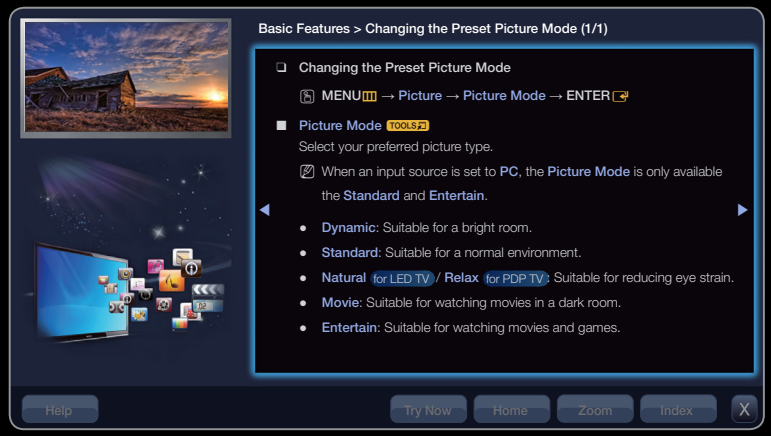
The e-Manual guide appears as above.

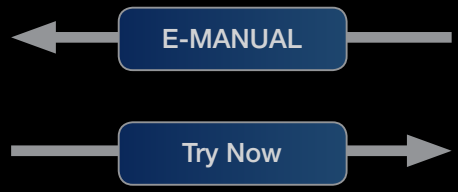
allshare
Sync media from multiple devices with AllShare
AllShareTM syncs your digital devices so you can enjoy music, movies and photos from your PC, camera and mobile devices, on your larger TV screen. Connects you to multiple PCs, as well.
Return

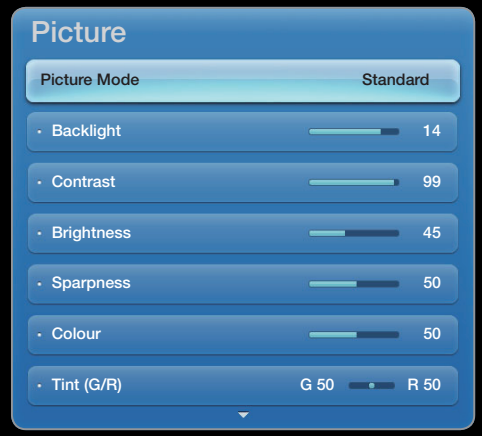
<Product Guide>

The product guide appears as above.

How to toggle between the e-Manual and the corresponding menu(s).


Basic Features > Changing the Preset Picture Mode (1/1)
Changing the Preset Picture Mode
MENU → Picture → Picture Mode → ENTER
Picture Mode TOOLS
Select your preferred picture type.
When an input source is set to PC, the Picture Mode is only available the Standard and Entertain.
Dynamic: Suitable for a bright room.
Standard: Suitable for a normal environment.
Natural for LED TV / Relax for PDP TV: Suitable for reducing eye strain.
Movie: Suitable for watching movies in a dark room.
Entertain: Suitable for watching movies and games.
Help
Try Now
Home
Zoom
Index
X



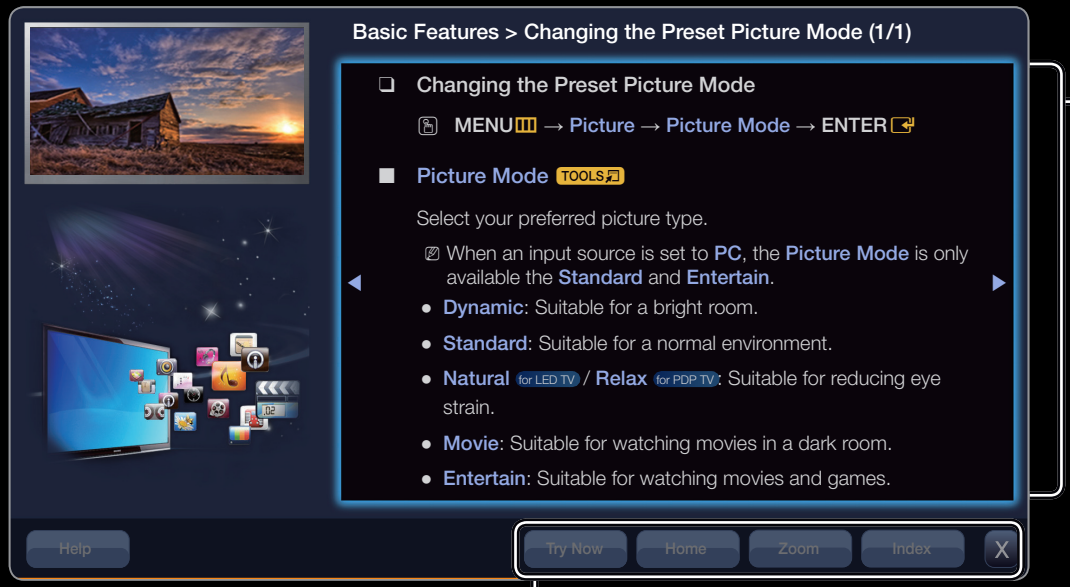


- The displayed image may differ depending on the model.

This function is not enabled in some menus.

Method 1	Method 2
1. Select **Try Now**, if you want to execute the corresponding menu (s). 2. To return to the e-Manual screen, press the **E-MANUAL** button.	1. Press the **ENTER** button when selecting Contents Area. The "**Are you sure?**" is displayed. Select **Yes** and then press the **ENTER** button. The OSD window will be displayed. 2. To return to the e-Manual screen, press the **E-MANUAL** button.

Viewing the Contents


Basic Features > Changing the Preset Picture Mode (1/1)
Changing the Preset Picture Mode
MENU → Picture → Picture Mode → ENTER
Picture Mode TOOLS
Select your preferred picture type.
When an input source is set to PC, the Picture Mode is only available the Standard and Entertain.
Dynamic: Suitable for a bright room.
Standard: Suitable for a normal environment.
Natural for LED TV / Relax for PDP TV: Suitable for reducing eye strain.
Movie: Suitable for watching movies in a dark room.
Entertain: Suitable for watching movies and games.
Help
Try Now
Home
Zoom
Index
X

Contents Area: You can view the corresponding contents, if you selected a sub-menu. To move previous or next page, press the ◀ or ▶ button.

Try Now: Displays the corresponding menu (s).

Home: Moves to the e-Manual home screen.

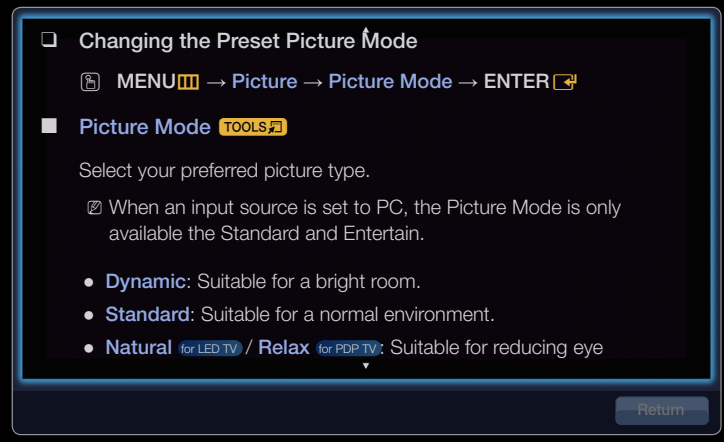
Zoom: Magnifies a screen.

Index: Displays index screen.

Using the Zoom mode

When you view the e-Manual instruction, select the **Zoom** to magnify the screen. You can scroll through the magnified screen by using the ▲ or ▼ buttons.

✎ To return to the previous screen, press the **RETURN** button.


Changing the Preset Picture Mode
MENU → Picture → Picture Mode → ENTER
Picture Mode TOOLS
Select your preferred picture type.
When an input source is set to PC, the Picture Mode is only available the Standard and Entertain.
Dynamic: Suitable for a bright room.
Standard: Suitable for a normal environment.
Natural for LED TV / Relax for PDP TV: Suitable for reducing eye
Return

How to search a keyword by using index page

1. If you want to search a keyword, select **Index** to open the **Index** screen.
2. Press the ◀ or ▶ button to select a character order you want, and then press the **ENTER** ↵ button.
3. Press the ▲ or ▼ button to select a keyword you want to see, and then press the **ENTER** ↵ button.
4. You can view the corresponding e-Manual instruction screen.

   ✎ To close the **Index** screen, press the **RETURN** button.

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English